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When Nets Profit

IN THE VILLAGES of Old Russia along the Volga, they flung a fishing-net over the bride on her wedding day to protect her from sorcerers. For similiar protection the bridegroom and his companions were often girt with pieces of net. Before the wicked wizard could do any harm he had to untie all the knots in the net. A knotty problem. But problems of protection have always had a way of extending the human imagination.

Modern businessmen are keenly concerned with protection. Industry today is girt with an immense network of safeguards. But manufacturers who wish to guard their products all the way from factory to shop avoid the bizarre. For the best protection—reliable packaging—they place their trust in stout "Fiberite" cases, and crisp, attractive cartons made from "Thames Board". These economic packaging materials are made by Thames Board Mills Limited in whose modern factories efficiency blends with skill in a fine productive effort.

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Volume CCXXVIII No. 2965 The SPHERE, London, January 26, 1957

The SPHERE

with which is incorporated THE GRAPHIC

A SUSSEX SUNDAY MORNING—MR. MACMILLAN AND LADY DOROTHY MACMILLAN (EXTREME RIGHT) AFTER SERVICE AT HORSTED KEYNES CHURCH : The Prime Minister and his wife talk with fellow-members of the congregation at the entrance to the churchyard. Before this week, in which Parliament has reassembled and he has faced the House for the first time as Premier, Mr. Macmillan spent the week-end at his home, Birch Grove House, Chelwood Gate, near Haywards Heath.

It is the nature of things that only a handful of churches can make the proud claim of having a Prime Minister among their records of regular worshippers. To the list will now be added St. Giles, in the village of Horsted Keynes, in Sussex. For it is the local church of Mr. Harold Macmillan, whose country home, Birch Grove, is nearby. He spent last week-end there and on Sunday was present with Lady Dorothy Macmillan at the morning service. Afterwards they stopped to talk with others of the congregation, taking part in the scene which is familiar outside any village church in England on Sunday. The next day the Prime Minister was back in Downing Street, preparing for the reassembly of Parliament on Tuesday. On his first appearance as Chief Minister on the Treasury Bench he had to answer a number of questions. They dealt with a wide variety of topics on foreign and domestic policy, some having been tabled for Sir Anthony Eden before the House adjourned. After Questions, it was expected that one of Mr. Macmillan's first duties would be to pay tribute to his predecessor, who is now on the way to New Zealand for the complete rest necessary to restore his health.

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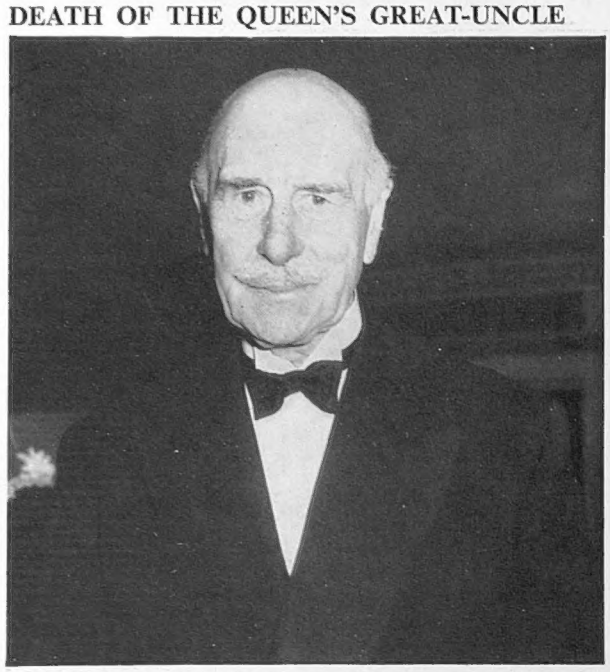
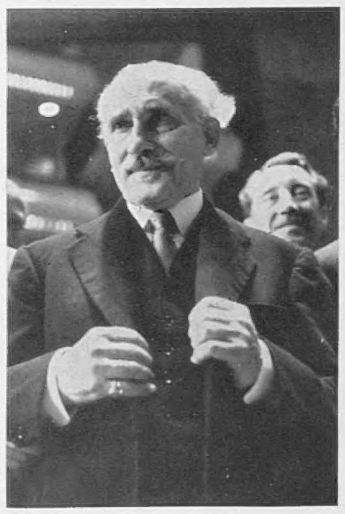
DEATH OF THE QUEEN'S GREAT-UNCLE



MAJOR-GENERAL THE EARL OF ATHLONE DIES AT THE AGE OF EIGHTY-TWO: The youngest son of the first Duke of Teck and Princess Mary, he was the husband of Princess Alice and brother of Queen Mary. After active service in the Matabele Campaign, the South African War and the First World War, he served with distinction as Governor-General of South Africa and later in the same office in Canada. His many appointments in England included the Governorship of Windsor Castle, Chancellor of London University, and President of the Football Association. He adopted the surname of Cambridge in 1917. His daughter is Lady May Abel Smith. The funeral took place at St. George's Chapel, Windsor, in the presence of the Queen and other members of the Royal Family. (*See* also page 148).

THE DEATH OF TOSCANINI

On right—
THE GREATEST CONDUCTOR OF THE TWENTIETH CENTURY: The slight, dynamic figure of Arturo Toscanini had long been a legend before he died at the age of eighty-nine in America last week. One of the few really towering characters of the century, he had no rival as the world's leading conductor for two or three decades before the end of his sixty-eight years of active music-making. English music-lovers will always treasure the memory of his interpretation of the nine Beethoven symphonies with the B.B.C. orchestra. He first made his reputation in Milan nearly sixty years ago.



THE LEBANESE FOREIGN MINISTER CALLS

MR. MALIK MEETS MR. SELWYN LLOYD: The Foreign Minister of the Lebanon (right) shakes hands with the British Foreign Secretary at a luncheon in London before the former left for New York, where he was to attend the United Nations. Mr. Malik said that he had "a pleasant exchange of views" with Mr. Macmillan during his stay in Britain.

RATES OF SUBSCRIPTION TO "THE SPHERE"

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A London Newsletter

195-198, STRAND, W.C.2.

New Administration.—All administrations must be judged by their fruits. Accordingly, all of them are received with hope and without condemnation. Criticism is usually friendly and intended to be constructive. Mr. Macmillan's rearrangement may fairly be called "clever." Quite certainly he has escaped criticism on the charge of nepotism. Kindly interest by critics suggests that Mr. Butler may bear too heavy a burden with the Home Office added to his existing tasks, but he deserves his heart's second choice of office. Lord Hailsham receives swift promotion, but Sir David Eccles was doing well with Education, and Lord Hailsham was considered to have made a good start at the Admiralty. Ten Ministers of Defence in eleven years suggest that Mr. Sandys may be a wasting asset. But already Defence costs are being slashed. Mr. Thorneycroft gets a good Press as the new Chancellor. Mr. Lloyd remains Foreign Secretary, and I confess I don't quite see how Mr. Macmillan could have removed him, if he wished to remain, in order to sweeten our international relations. In any case, Mr. Eisenhower has made a sweetening gesture in welcoming the new Administration. A new Ministry (of Power) brings in a business-man, Sir Percy Mills, to the Cabinet and Upper House; but the Cabinet is nevertheless reduced by one to eighteen, and its average age is less by two years. The inevitable crop of Viscountcies for the retiring Ministers involves no marginal by-elections. Undoubtedly a clever and adroit shuffling of the pack; and we hope for some quick tricks.

Exchange of Letters.—I delight in the exchange of letters between Premier and old colleagues when new Cabinets are making, and I wish I knew more of the origin and technique of the custom. Clearly they are not original documents. Ministers dropped from or voluntarily retiring from the former administration visit Downing Street and have it out *viva voce* with the new Premier. Their comings and goings are the chief evidences of the tipsters. It is all settled *viva voce* and the letters clearly are written and exchanged later and published for record. The outgoing servant gets his "character" to show to posterity and his next employer, and the keynote is gratitude for selfless service and sweet reasonableness and mutual admiration. But when did this fashion begin? Did Pitt, did Gladstone, did "Dizzy," when dropping pilots, accept the justice of a written character, and did the discharged Ministers always record their admiration of the master who dispensed with their services? It is certainly a common form of exchange since the wars, and I like it. I like "the finest club in the world" to display these fine old manners and to know that a Premier and his colleagues, behind the doors, are on "dear Harold" and "dear Bob and Jim" terms, as on the playing-fields of Eton in the dear old days. In any case, Ministers are justified in getting records of their services on the files. For posterity soon forgets the holders of high offices. The wizard who can, in a TV quiz, recall, and place in order of time since 1900, 30 per cent. of the last holders of the high office of Home Secretary, for example, deserves a £1,000 prize. Could you do it?

My Brief for the Premier.—One of the penalties of growing old is that hero-worship and faith in leadership tend to grow weaker when one finds men whom one patted on the head as little boys occupying the most responsible offices in the Realm, as Premiers, Primates, Chief Justices, and what-not. Not that I ever patted Mr. Macmillan or the Primate on their young heads—but the principle works out. Nor am I by age and experience qualified to advise a Premier or Primate or to brief them on policy or doctrine. But old men like giving advice (which is never taken) and have a long experience in some or other, often humble, walk of life. And the new Premier shall have the benefit of a chance he will not take, to hear the little bees which buzz in my bonnet. Onlookers, after all, see most of the game, and when a sudden political surprise occurs it sometimes happens that you and I are less surprised or confounded by it than are the inner ring or the close "students of politics." I sincerely hope that during his Premiership he will either give up applauding our new democracy as "a fact which has arrived and come to stay," or alternatively, will begin to shape some of our institutions more nearly to fit democracy. I hope that he will at last determine to find some means of reforming the Upper House, even if it entails no increase in powers, and I hope that the hereditary principle will no longer bedevil the chances of good men to hold certain high offices, and even if the plan still holds on to the hereditary principle to some extent, the leaders of our vital industrial institutions should be admitted to the Second Chamber councils as the Law Lords are admitted. I hope that when the times come round to recommend honours, he will remember that we have quite enough hereditary peers of Tory persuasion to go on with for several years, reform or not, and that the continual creation of baronets to-day has no sense and no logic in it, and that these Honours Lists have reached a stage of anomaly and even absurdity which requires drastic reconsideration.

Rebuilding, Not Patching.—I hope, too, that, as an ex-Chancellor, he will think again about the possibilities of Government-expenditure retrenchment. Hitherto, the answer to any smallest suggestion for economising in central or local government organisation has always been: "The law lays it down that this committee or that must have that or this number of representatives," and so on. If the law says that, the law must be changed. In other words, the whole structure of administration, from Whitehall to the parish, must be re-examined and rebuilt as a streamlined instrument to deal with our new circumstances, our comparative poverty and ever-increasing stresses. In our international relations, I hope he will remember his own words that "he has learned by bitter experience what comes of appeasement," and will never forget that this nation of ours owes its greatness to character and not to wealth, now as ever; and that sackcloth and humility become us far less well than mourning becomes Electra. We are still a great people, still capable of responding to leadership, if ever it emerges clothed in courage and greatness of mind. It is when leadership is lacking that we confine our interests to narrow, personal aims and scramble for spoonfuls for ourselves.

The Statesman's First Asset.—Finally, I repeat the hope expressed last week that he will realise that health is the first asset for a successful modern statesman, and that, to succeed, he must conserve his strength. He *must* have holidays; *ergo*, he must rely on proved deputies. The problems of to-day, in their urgency, gravity, continuity and multiplicity, are stronger than the men who must handle them. Modern statesmen are physically no tougher than Gladstone and "Dizzy," and *they* were able to spend their energies on what to-day we should class as parish-pump stuff and chicken-feed. I hope Mr. Macmillan will remember these things and that before his Government comes to an end, whether or no he has succeeded in pulling us out of the red and reviving our world influence, he will at least have laid the foundations of an instrument of

AN AMERICAN LABOUR LEADER VISITS BRITAIN

MR. JOHN L. LEWIS CALLS ON THE CHANCELLOR OF THE EXCHEQUER: The President of the United Mineworkers of America takes his leave of Mr. Thorneycroft at 11, Downing Street. With Mr. Macleod, Minister of Labour and National Service, Mr. Lewis had been lunching with the Chancellor. The seventy-six-year-old American miners' leader spent a few days in London on "official business," as he put it. During his stay in Britain Mr. Lewis intended to make several visits, including one to a defence establishment which makes use of American equipment.

government and administration, better streamlined to meet modern stresses and less absurdly at variance with modern democratic manners of thought and with the urgent need of cutting our coats to reduced and inferior supplies of cloth.

Apartheid.—How very little most of us know concerning the internal affairs of South Africa and the burning question of *Apartheid*. We never learn the central parts of a complex problem, though some of us easily become wild partisans after reading books and expositions by fanatical supporters of either end. I have long felt that I must not be charged with impertinent interference in the domestic affairs of a great nation, and so I have tried to secure a child's guide to the burning problem from one who has observed it on the spot. *Apartheid*, I suppose, was the word, the idea, the principle, which brought the Nationalists to power. I believe also that, though they will achieve much, they can never hope to carry it through completely. To do so would cost millions which they could not raise and cause practical domestic difficulties which their own supporters would not face. The policy, however far it is pressed forward, carries, I believe, no danger of revolution, certainly not in Cape Province. There are no arms and no organisation and no leadership for such an enterprise, and between the coloured population and the natives there exist mutual scorns and suspicions which make co-operation impossible. Of late, something has been done to organise State schools and hospitals, but still, in recent history, it is from the churches and from the white population that practical help for the under-privileged has come. Religion, among those that practise it, whether Catholic, Anglican or Dutch-Reformed, is real, sincere and disciplining. The Anglican fathers who for half a century have worked in the Cape Town Native Mission are deeply revered and their influence is seen in the friendliness and courtesy shown to white people. Those who most detest the Government's policy seldom lump the white population with the Government. Under the wise leadership of Smuts, the United Party's aim and policy were to unite the Dutch or Afrikaans-English ranks into one South African patriotism to work together in equality, securing the harmony achieved in Canada between English and French "settlers." Thereafter it was intended to unite with them the native and coloured populations by giving the latter justice and an increasing share of responsibility in the national life.

Smuts—and After.—Smuts's death unfortunately left a vacuum. Hofmeyer, his natural successor, was dead. Strauss did not possess the gifts of leadership, honest man as he always was. Lawrence, Van der Byl and Oppenheimer, for various reasons, were unable to assume leadership. When in 1947 the Nationalists came to power, under men of vigour and a deep love of their country, they came in with a clear-cut policy and implacable determination. Malan was old but rugged, Strijdom more extreme. Their aim was a Republic, one country, one flag, with Afrikaans as the main language and white superiority at all costs. Big business interests rejected any form of secession by the Opposition, as was proved in Durban in 1954. Though the courts stood firm, Strijdom secured the Senate and removed the coloured voters from the roll, breaking the Constitution on which the Union was founded. And there it rests until the United Party can find a leader and win back to power. That the aims of the Nationalists will never be fully achieved is more than probable. It is certain. Meanwhile, and because of that certainty, it would be in the interests of that great country if far more urgent domestic problems received priority. If these were grappled with, the political issue might be far more easy to compromise.

Basic Problems.—Housing and drink remain the chief basic problems in South Africa. Employment and wages are no present problem. If decent houses existed, the natives could pay fair rents for them. In the Cape, the black spot of Windermere, five miles from Cape Town, remains to deride the promises of successive Governments. Men have sacrificed political careers to try to solve this dreadful problem, but apathy is general. Drunkenness is responsible for most of the crime. Though by law debarred from buying any alcohol, the natives can get all they want from the coloured people on the black market, and efforts to revise the drink laws are prevented by vested interests. "Friday night" drunkenness is a by-word which eats up the wages and results in crime, disease and undernourishment. And these evils are not cured, or indeed, much alleviated, by the quite generous and far-reaching social assistance and aids given by Government and private benefactors. Old age pensions, free legal aid, the care of children and mental cases, all these matters are the concern of the Government. But these two evils remain first priorities and should be so regarded. Those who know enough to get to grips with the political and religious complications of this grave problem can do no better than read Archbishop Clayton's charge of December 5 last at the Fortieth Session of the Synod.

THE OLD STAGER

THE TRADITIONAL OPENING OF THE SALMON SEASON IN PERTHSHIRE

A PIPER LEADS THE WAY: Anglers are seen with their piper, George Mackenzie, as they make their way through Kenmore, in Perthshire, to the lochside for the traditional launching of the salmon rod fishing season on the River Tay and Loch Tay. In the background of the picture is Kenmore Church. On the opening day the prospects for the season were said to be promising and that it might be the best for some years. Among those who went out on the River Tay on the first day was the Countess of Mansfield, who landed three salmon, ranging from 18 lb. downwards, on the Pitlochry Pool. On the Portnacraig Pool of the River Tummel Mr. K. H. Balmain landed a 30-lb. salmon.

On left—

GAFFING THE FIRST SALMON CAUGHT ON THE RIVER TAY: Caught by Mr. A. Flecker, of Buckingham, on the Benchil beat, near Stanley, the 17½ lb. salmon is being gaffed by his gillies, J. Kettles and F. Ross.

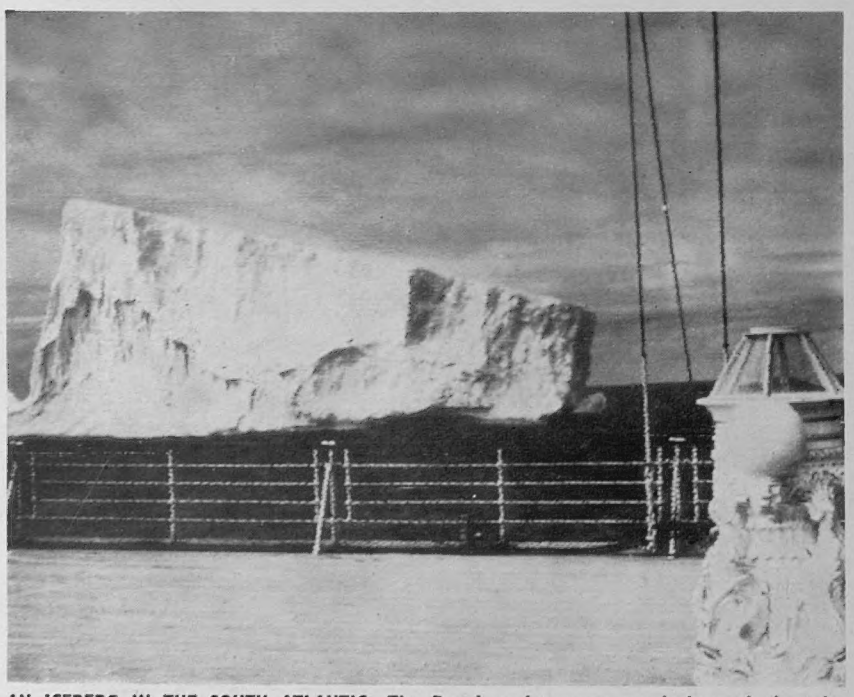
LAUNCHING THE FIRST BOAT ON LOCH TAY: To the strains of "Over the Sea to Skye," played by George Mackenzie, Miss Rae, manageress of the Breadalbane Hotel, Kenmore, breaks a bottle of whisky over the bows of one of the boats. In these vessels hardy anglers go out in all weathers and will sit unperturbed by snow or sleet.

THE DUKE VISITS THE "LONELIEST ISLAND IN THE WORLD": Wearing a beard, the Duke of Edinburgh is photographed with Mr. and Mrs. Glass and their family during a visit he paid to their home on the lonely South Atlantic island of Tristan da Cunha. The Royal yacht *Britannia* spent two days at the island before Prince Philip left to continue his world tour. Tristan da Cunha lies in the middle of the South Atlantic, some 1,800 miles south-west of Cape Town.

THE DUKE'S TOUR GOES ON

The Duke of Edinburgh Visits the Island of Tristan da Cunha in the South Atlantic

The Duke of Edinburgh spent two days on Tristan da Cunha during one of the halts on his world tour. The island, which has been described as "the loneliest in the world," lies in the middle of the South Atlantic, about 1,800 miles to the south-west of Cape Town. Prince Philip was the second Royal visitor ever to set foot on the island, the first being another Duke of Edinburgh, Queen Victoria's second son, Alfred. During his visit the ship's company of the Royal yacht gave presents of toys and oranges to all the children on the island. When the *Britannia* sailed two days later the Duke sent a radio message to the island saying, "None of us will ever forget Tristan's cheerfulness and hospitality. We send you all our best wishes for a very happy future."



AN ICEBERG IN THE SOUTH ATLANTIC: The Royal yacht passes an iceberg during the voyage of the Duke to Tristan da Cunha in the South Atlantic. Earlier the *Britannia* had been in Antarctic waters for her visit to South Georgia.

AT THE HELM OF A LONGBOAT: The Duke of Edinburgh steers a longboat from the *Britannia* to the landing pier on Tristan da Cunha. Sitting below the Duke is Fred Swales, the coxswain, who guided him through the treacherous surf.

THE START OF THE GLOBAL FLIGHT FROM CASTLE AIR BASE, MERCED, CALIFORNIA : One of the three United States Air Force B52 Stratofortresses, which flew non-stop round the world in 45 hours, takes off from Castle Air Base in California. The three planes flew across the United States to Newfoundland, then over the Atlantic and on across North Africa, Saudi Arabia, the Indian Ocean, the Philippines and Guam back to California. They were refuelled in flight by aerial tankers.

ROUND THE WORLD IN 45 HOURS

Three U.S. Stratofortresses Make a Non-stop Flight of 24,325 Miles

Besides being a considerable endurance test and training performance for the aircrews concerned, the recent flight of three United States Air Force B52 Stratofortresses round the world in forty-five hours was clear proof that America can drop nuclear bombs on any city on the globe if it ever becomes necessary. The jet bombers set out from Castle Air Base, Merced, California, and flew across the United States and Canada to Newfoundland. From there they continued their journey across the Atlantic to North Africa, over Saudi Arabia and the Indian Ocean south of Ceylon, and returned across the Pacific via the Philippines and Guam. Their average speed was 525 m.p.h.

REFUELLING IN THE AIR: One of the B52's refuels from a KC-97 tanker aircraft over Sidi Slimane, North Africa. The jet bombers cut the previous round the world non-stop record by nearly 50 hours. This was set up in 1949 by a B50 which flew 23,452 miles in 94 hours.

DECORATIONS FOR THE AIRCREWS: General Curtis Lemay, the Commander of the United States Strategic Air Command, decorates members of the three crews after the flight. The ceremony took place at March Air Force Base, California.

THE END OF A LONG JOURNEY : One of the Stratofortresses touches down, with its parachute brake billowing behind, at March Air Base, California, at the end of its 24,325-mile journey. Five planes took off on the flight but one was left in England, at the U.S.A.F. base at Brize Norton, Oxfordshire, and another had to turn back at the halfway mark because of engine trouble. The average speed of the three remaining Stratofortresses for the entire flight was 525 m.p.h.

ISRAELIS EVACUATE EL ARISH

The Mouth of the Gaza Strip is Handed Over to U.N.

With brief ceremony, the Israelis left El Arish, which they had occupied since their victory over Egypt last November. The Israeli colours were lowered from the office of the Military Governor in the presence of General Dayan, the Israeli Chief of Staff, and other officers. Then the last convoy set out up the Gaza Strip.

The Israelis had no direct contact with the Yugoslavs of U.N.E.F., who were taking over from them. They handed over through an intermediary of the International Red Cross. As soon as the United Nations troops began to arrive, the town gave itself up to a series of celebrations. Inhabitants swarmed on the armoured cars and some embarrassment was caused to the soldiers by the enthusiastic waving of pictures of Marshal Tito in the company of Colonel Nasser. Even wilder was the welcome given later to Brigadier Samir Tewfiq, the Egyptian Governor of Sinai, who came for the hoisting of the Egyptian flag.

But for all the enthusiasm it was no day of triumph for Egypt. The Governor returned only under the protection of the United Nations and the Israelis had withdrawn no more than sixteen miles into the Gaza Strip. At the beginning of this week an impasse had been reached with the United Nations regarding a further Israeli withdrawal.

THE ISRAELI ARMY STARTS TO WITHDRAW INTO THE GAZA STRIP: Motorised troops drive down the road from El Arish, the outlying houses of which are in the far distance. The town lies at the southern end, or mouth, of the Gaza Strip. Yugoslav units of the U.N. forces took over after the Israeli Army's departure, which was regarded as another stage in the Israeli withdrawal from the Sinai Peninsula. However, at the beginning of this week there was a deadlock between the United Nations and Israel regarding the evacuation of the Gaza Strip itself and, in the south of Sinai, the approaches to the Gulf of Aqaba.

THE LIMIT OF THE EVACUATION: Israeli soldiers set up a road block on the highway between El Arish and Rafah. This marked the limit of sixteen miles from El Arish to which the Israelis were prepared to go in this phase of their withdrawal up the Gaza Strip.

TAKING DOWN THE FLAG: The colours of Israel are removed from the balcony of the Military Governor's office in El Arish and members of the Israeli Army stand at the salute. This was a final ceremony before the Israelis left the town and the U.N. forces went in.

HANDSHAKES AND GOOD-BYES: Arab dignitaries of El Arish and Israeli officers take farewell of each other. The town was handed over to a representative of the International Red Cross, no direct contact being made with the advancing Yugoslav units of U.N.

THE EGYPTIAN GOVERNOR RETURNS: Surrounded by a welcoming crowd, Brigadier Samir Tewfiq, the Egyptian Governor of Sinai (standing in the car in centre), returns to El Arish. Before leaving, the Israelis had destroyed military installations.

AN ENTHUSIASTIC WELCOME: On re-entering El Arish for the first time since Egypt's defeat by Israel, Brigadier Samir Tewfiq is carried shoulder high by a cheering concourse of the inhabitants.

BEDUINS JOIN THE DEMONSTRATIONS: Riding on their camels and bearing a banner with slogans the tribesmen precede a large portrait of Nasser, one of many produced for the celebrations.

A GESTURE BY U.N. PERMISSION: The Governor of Sinai flings out his arm in dictator-like salute to acknowledge the plaudits of El Arish, as he comes back for the ceremony of hoisting the Egyptian flag. But his country had only returned there under U.N. protection.

THE YUGOSLAVS IN EL ARISH: *Left*—An armoured car of a Yugoslav unit of the United Nations Emergency Force, with the U.N. flag on its bonnet, carries local citizens who have swarmed on it to welcome the international troops as they arrive in the town. *Right*—Yugoslav soldiers form a cordon round one of their vehicles to keep back the over-eager crowd. A few hours after the Yugoslavs reached El Arish, Major-General Burns, the United Nations Commander-in-Chief, arrived by helicopter.

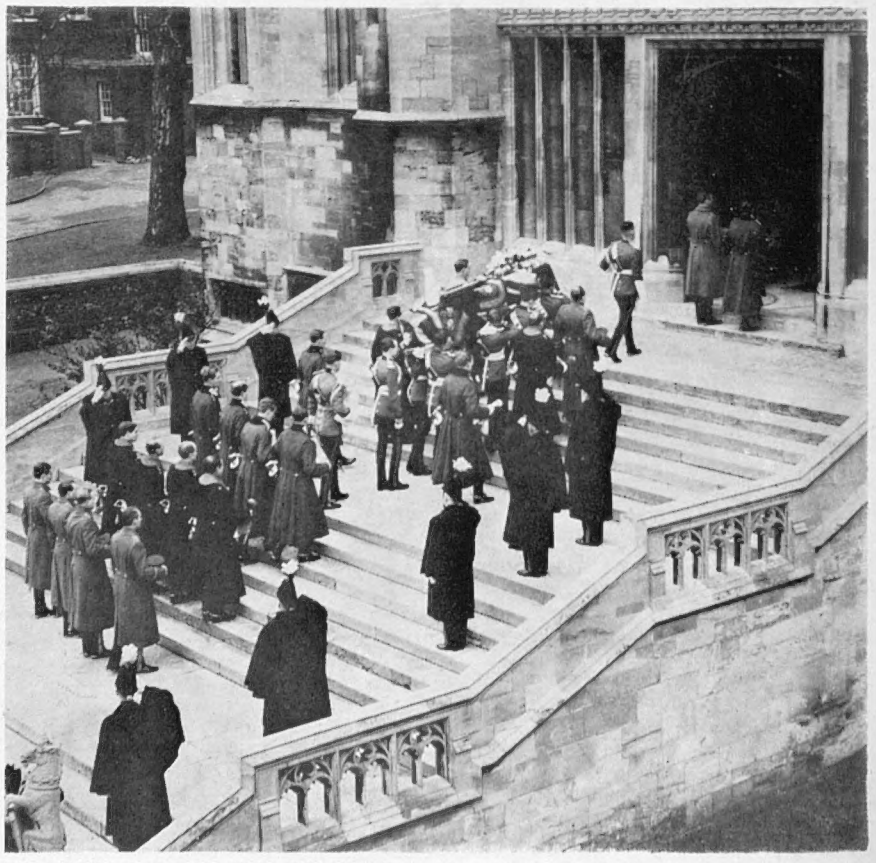
MILITARY FUNERAL for LORD ATHLONE

The Queen Attends the Funeral of her Great-Uncle at St. George's Chapel, Windsor

The military funeral of the Earl of Athlone took place in St. George's Chapel, Windsor Castle, last Saturday, in the presence of the Queen, Princess Alice Countess of Athlone, and other members of the Royal Family. The coffin was taken from London by train and then conveyed from the station in slow procession to the west door of the Chapel. Resting on a gun-carriage, it was escorted by detachments of the Life Guards, Royal Horse Guards (the Blues), and the 7th Queen's Own Hussars, and the route from the King Henry VIII Gateway to the Chapel was lined by a further detachment of the Life Guards. After it had passed through the west door of the Chapel the coffin was followed to the altar by the male mourners, who included the Duke of Gloucester, the Prince of the Netherlands and Lord Mountbatten. During the service, which was conducted by the Dean of Windsor, the choir sang the hymn "For All the Saints," and at the committal Lord Athlone's son-in-law, Colonel Sir Henry Abel Smith, sprinkled earth on the coffin as it was lowered through the floor. "Last Post" and "Reveille" were sounded by the State Trumpeters of the Life Guards. Also present in the Chapel were the High Commissioners for both Canada and the Union of South Africa (in which countries the late Earl had served as Governor-General), and the representatives of other reigning sovereigns.

ROYAL MOURNERS: The Queen, the Queen Mother and Princess Margaret leave Liverpool Street Station during their journey from Sandringham to Windsor to attend the funeral of the Earl of Athlone.

THE FUNERAL PROCESSION APPROACHES ST. GEORGE'S CHAPEL: The gun-carriage conveying the coffin from the station passes through the Castle precincts on the last stage of its journey. A salute of thirteen guns was fired during the procession.



THE COFFIN IS BORNE INTO THE CHAPEL: After passing through the west door it was followed to the altar by the male Royal mourners. *On left*—The band of the Life Guards precedes the gun-carriage through the crowded streets of Windsor.

STREETS ARE CLEARED IN THE HUNGARIAN CAPITAL WHILE VIOLENCE CONTINUES: Men and women move rubble and debris, the aftermath of fighting in a street in Budapest. In spite of attempts to give an appearance of a return to normal, violence continues unabated in Budapest. There have been further clashes between Soviet tanks and workers in various factories. Drastic changes in the law have made almost any activity against the State punishable by death.

BUSINESS AS USUAL? Traffic is plentiful, passengers gather round trams, and streets are crowded. But the Kadar regime is continuing to arrest large numbers of people, and to block all attempts at impartial investigation of the true state of Hungary.

BUDAPEST FAÇADE

Behind the Scene of "Return to Normal" the Grim Struggle for Freedom Goes On

SCHOOLS REOPEN IN BUDAPEST: The girls are going to their school on the first morning; it is opened after three months. No doubt it is a great day for them. But the Soviet-controlled Hungarian authorities may use the schools for spreading their propaganda.

On their recent visit to Moscow, Mr. Kadar, the Hungarian Prime Minister, and Mr. Marosan had talks not only with the Soviet leaders but also with Mr. Chou En-lai, the Chinese Prime Minister, who was in the Soviet capital at the time. They are reported to have agreed to "cut short with the utmost resolution all attempts to weaken the unbreakable unity and might of the Socialist camp."

Such statements indicate the Hungarian Government is still intent on breaking the majority of the people in their struggle for freedom. The continued employment of Soviet tanks against workers and the further strengthening of the law are evidence of this. The summary courts set up last month can now treat almost any activity as "counter-revolutionary" and award the death penalty. But Kadar propaganda is making great efforts to show that Budapest is now "returning to normal."

—AND IN AMERICA

On right—

WOMEN WATCH HUNGARIAN ACTORS: Mrs. Zaroubin, the wife of the Soviet Ambassador, closes her eyes as a group of Hungarian actors perform at a luncheon given by the National Federation of Business and Professional Women's Clubs in Washington. She heard praise for the Hungarian Freedom-fighters.

b

MODELS "AT SEA"

Miniature Ships' Hulls are Tested in an Experiment Tank

TESTING SHIP MODELS ON A MINIATURE OCEAN: In the ship model experiment tank of Vickers-Armstrongs (Shipbuilders) Ltd., at St. Albans, a wax scale model of the hull of a future liner, the *Oriana* (centre), is tested to collect data on her eventual design and performance. In the foreground, a rough "sea" is created by a wave-making machine. On a travelling carriage above the tank, a technician watches instruments recording the behaviour of the hull under the stresses imposed on it by various conditions.

Before a ship of any size or type is built, very many of the problems involved in its construction can be tackled in a ship model experiment tank. One such tank, belonging to Vickers-Armstrongs (Shipbuilders) Ltd., at St. Albans, in Hertfordshire, is the largest to be privately owned in this country. Its purpose is to investigate, by the use of scale models, all hydrodynamic problems in the hull design and performance of a future ship. The tank is a big concrete basin, nearly 150 yards long, over 20 ft. wide, and 11 ft. 3 ins. deep. It is second in size only to the tanks of the Admiralty and the National Physical Laboratory.

Hull models, usually made of paraffin wax, 10 to 20 ft. long and weighing between a quarter of a ton and a ton, are "launched" on to this miniature ocean. They are towed, or driven by their own propellers and machinery. Conditions of every kind likely to be encountered at sea are then faithfully reproduced in miniature, from calm waters to mountainous waves produced at one end of the tank by a wave-making machine. The tank is spanned by a travelling carriage on which is mounted apparatus for measuring the forces and motions imposed on the vessel by the water. The carriage moves along the tank with the model under test. From the data collected, equivalent figures for the full-scale ship can be calculated, allowing its performance to be predicted. At one end of the tank are docks for storing models and for ballasting or fitting them up before test, while at both ends there are beaches for breaking up waves created by the passage of the model or by the wavemaker.

The activities of the St. Albans tank fall into four categories. Models of ships to be built by the company receive routine testing, principally in order to determine the power needed to drive the ship at the required speed, and to investigate possible improvements in design. Only two or three models might be made for a vessel of simple construction, but for a fast passenger liner involving complex problems, as many as fifteen could be made. Secondly, the tank is used for exactly similar work for other companies. Thirdly, research work is undertaken for Vickers-Armstrongs, intended to improve general hull design and to predict the probable performance of future types. Finally, research work for the British Shipbuilding Research Association investigates major problems of ship design and performance for the benefit of the whole industry. By the end of last year, 716 models of every type of ship had been tested in the tank, or were being dealt with at the time.

The work of the tank and its staff of thirty-seven on behalf of the British Shipbuilding Research Association gives a good idea of its scope. Research is done on the effect of waves on performance, on the stresses on the hull caused by its passage through different "seas," on the effect of various principles of design (e.g. breadth/draught ratio, displacement/length ratio, and distribution of buoyancy) on the strength of a hull, and on the nature of "slamming." The last-named phenomenon, involving very high pressures on bottom plates, and usually damaging them, sometimes occurs when a ship is pitching.

The complex apparatus mounted on the travelling carriage measures the pressures set up against the model, records the motions of the waves, controls and measures the speed of model and carriage, and gives data on the model's sinkage or rise in still water. On "shore" are the wavemaker, a wave height recorder, roughness gauges for testing the surface of a hull, a model-cutting machine and a propeller-milling machine. Photographic equipment is used to record the motion of models.

MAKING THE MODEL: A wax model of a ship's hull is shaped by the cutting machine. It produces an exact miniature of whatever hull is required. The model is subjected to sea-going conditions and from the data collected figures for the full-sized ship are calculated.

ON THE "HIGH SEAS": Mountainous waves surround the model of the *Oriana* as it is guided along the 150-yard-long tank by the travelling carriage. Sometimes models are driven by their own engines and propellers

THE "ORIANA" LEAVES HER DOCK: At one end of the tank are docks where models are stored or prepared for testing. The miniature hulls are generally between 10 and 20 ft. long, weighing between a quarter of a ton and a ton.

SNOWDRIFTS IN KENT: This picture, taken in February 1956, shows a snow-covered country lane near Eltham, in Kent, where many farms had been cut off by drifts. The South of England has, as a rule, a lower average of days of snow than the North, as the author of this article shows. The South has an average relative to low ground of about two days of snow in December, but almost twice this number in each of the remaining winter months. Farther north, the frequency increases.

DIGGING OUT A RAILWAY LINE: A working party clears hard-packed snow from a vertical-sided rock cutting near Belah Viaduct, on the line between Kirkby Stephen and Barran, in Westmorland. Twenty feet of snow is being gradually cut out in benches. The picture was taken in 1947.

SNOWFALL IN BRITAIN

A Study of the Snowfall in the British Isles

By DAVID BOWEN, F.R.Met.S.

IN 1869 Scotland and the northern counties of England experienced fierce blizzards within ten days of midsummer, while between July 9-12, in 1888, snowfalls were widespread throughout the whole of Britain. But to-day, however unseasonable the weather, we do not expect snow later than in May or before September. This is still a sad admission, but it is perhaps not too high a price to pay for having our worst bouts of winter confined to the period between December and March, and frequently to only January or February.

For southern England there is an average relative to low ground of only about two days of snow in December, but nearer twice this number in each of the other winter months. Travelling northwards towards higher ground, the frequency increases. Balmoral expects eight days of snow or sleet in December, nine in January, eight in February, and ten in March. These averages are naturally more useful for purposes of comparison than for giving an indication of what to expect in any one year. The most significant feature of British snowfall is its ability to vary in quantity, location and time of arrival from one year to another.

Over a twenty-five-year period the regions of heaviest snowfall are well marked. Falls are heavier in the eastern Highlands of Scotland than farther west, and similarly, in England, the eastern Pennines have more snow than other parts. These facts, of course, prove that altitude is no less important a factor in the production of snow than latitude, for temperature decreases with height. Above 3,000 ft. on the Cairngorm peaks, Ben Nevis and other summits, even comparatively mild air-streams will be cooled sufficiently to produce snow if the correct amount of water vapour is present. And snowdrifts tend to linger in these regions throughout much of the summer.

To a lesser degree such effects may be noticed in towns like Huddersfield or the high-lying suburbs of Sheffield. But, at all levels, exposed north-eastern districts have more snow than those in similar (or more northerly) latitudes bordering the west coast. The section of the Great North Road between Stamford and Grantham is only a few hundred feet above sea-level, but it is notorious for its high snowfall during

(*Continued on following pages*)

SNOWED-UP IN WALES: Two steam-engines lie isolated by snowdrifts near Craig-y-Nos, Brecon, Wales, during the severe winter of 1947. The picture was taken in March.

HELP FOR THE STRANDED MOTORIST: An A.A. patrol car arrives to help dig out a snowbound car near the Lincolnshire village of East Barkwith. The picture was taken last winter.

SNOWFALL IN BRITAIN

WICK AIRPORT, SCOTLAND, DURING THE WINTER OF 1955: The runways of this airport in the north of Scotland are indistinguishable under a blanket of snow. Throughout the heavy snowfalls of that winter Wick was the centre of the supply-dropping operations and the helicopter rescue flights which linked the isolated villages of the north. Among the supplies dropped by the aircraft were bundles of fodder for the hundreds of cattle cut off in the outlying fields. Despite every effort, many sheep and cows died of exposure

(*Continued from previous page*)

wintry weather. In 1708 Ralph Thoresby was forced to spend five days at Stamford due to deep snow. Towards the end of that century the drifts in the still-flatter country near Cambridge were equally severe and imprisoned a certain Elizabeth Woodcock for eight days before she was discovered—miraculously—alive.

Along our western coasts the vagaries of snowfall are no less surprising. Prestwick, on the Scottish mainland, and, farther south, Morecambe Bay are markedly snow-free, and so are the other coastal regions which are largely protected from easterly and northerly winds. But the heights of the mild peninsula of south-west England, notably Dartmoor, are exposed to the cold, wintry winds from the east and south-east, and there are times nearly every year when they suffer heavy falls. Drifts of exceptional depth have also been reported. In addition, transport in all the inland regions of the south-west, from Devon to Wiltshire, may be affected as seriously as it is in counties farther east, for many of the main roads and lanes are deeply entrenched.

Those, therefore, who wish to visit the West Country "to avoid the winter," should make sure that they go to the mild areas. In the Scillies there is an average of only three to four days of snow- or sleet-fall per year. South-west Ireland shares this record. The islands of Scotland, which are more exposed than the protected parts of the mainland to outbursts of polar air, have up to forty days per year. Ben Nevis has an average expectancy of 170 days. These figures, however, are reduced by between approximately 100 and 200 per cent. (more in the case of the Hebrides) when considering the number of days during which snow is persistent and lies on the ground.

Whether it rains or snows is entirely a question of air temperature, not of the temperature of the ground, but whether the snow will lie or not depends on both these factors. Drifts—or the lack of them—are allied to wind strength, but not entirely so. Hilly or undulating country encourages the formation of drifts, particularly when the wind is more than moderate in strength, and the process is further aided by strong gusts, which are accentuated over bumpy or hilly ground. Finally, the depth of both level and drifted snow will be largely related to the air temperature during the fall. When the temperature is below or near freezing-point, flakes tend to be of the small granular variety, but at around the level of 34-37 deg. Fahrenheit they will be larger and stickier.

"It's too cold to snow" is a remark which many of us have heard. There is just a grain of truth in this—unlike that other saying, "It's too windy to rain," which is completely false. For the colder the air happens to be, the less moisture it can contain, either as rain or snow.

CORNWALL UNDER SNOW: Motorists try to climb the snow-covered slope of a hill near St. Agnes. There is an average of only two to three days of "snow-lying" in Cornwall per year.

THE TOWN SQUARE OF HUNTLY, ABERDEENSHIRE: Snow was lying to a depth of several feet in this Scottish town during the winter of 1955. Low temperatures at the beginning of the year brought on heavy falls.

CLEARING THE PERMANENT WAY: Frozen snow is cleared from railway points at Sevenoaks Station, in Kent, during January 1955.

A BLIZZARD IN THE NORTH: A car with a sidelight still burning lies engulfed in snow near Dove-holes, Buxton, Derbyshire, in February 1947.

IN THE GRIP OF WINTER: This isolated farm in Sutherland, 12 miles north-west of Brora, was one of several which were cut off during the heavy snowfalls of 1955. Shackleton aircraft of the Royal Air Force were used to drop food for the inhabitants and fodder for the livestock until relief teams were able to cut through the drifts and reopen the roads.

But in this country we must remember that cold, dry easterlies soon clash with milder Atlantic airs, and it is these which provide the moisture for our heaviest snows.

Those of us who spend much of our working lives in large towns are inclined to forget the magnitude of the snowfall on high land. In London, especially, with its comparatively high artificial air temperature and its level, virtually drift-free roads, it requires some imagination to picture high-altitude roads such as those which cross the Pennines from Durham to Cumberland or from the Derbyshire Peak District to Cheshire. Snow posts 15 ft. high are used to indicate the roadway, and even these may become buried from time to time. In the worst-affected north-eastern regions railway lines need to be protected at danger-points by wooden sheds. Even during the March and early April "lambing storms," when snow showers occur in a strong Arctic airstream, drifts in the exposed northern hills are a certainty.

But, despite our abundant mountain snowfalls and the fact that, at 2,000-2,300 ft., the snow-cover in Scotland compares favourably with the normal expectancy of lower Alpine resorts, conditions for ski-ing in Britain are comparatively poor due to the alternation of damp winds and frosts—which create bumpy, dangerous surfaces. These, however, may be made temporarily safe again by the arrival of fresh snow.

Under present climatic conditions our mountains could not contain even small permanent glaciers unless they rose to well above 5,000 ft. But since about 1830 north European winters have become progressively warmer, and very rapidly so since the turn of the present century. Evidence from Scotland backs up the more spectacular observations from Norway, Iceland and Greenland, in that, during the Septembers of 1933, 1935, 1938 and 1945, some of the semi-permanent snow-bed drifts on the north-east flanks of Ben Nevis and Braeriach completely disappeared. Another fifty-year temperature rise at the same rate would mean a considerable reduction in snowfall in all parts of Britain, but it would be safer if we could concentrate, instead, on the more probable event, which is the gradual return to less clement winters.

This, after all, has been the case after each of the seven major winter temperature rises since 1300. Another severe winter like 1947 would be little short of disastrous under present conditions in this country, and we should seriously consider in what ways we can begin to replan our economy to meet events of this nature.

Whatever we do, our enjoyment of snow would be strictly limited, for nature, combined with industrial dirt, overcrowded roads and the efforts of local councils, would soon convert it into the most appalling filth. Only in the wildest parts can it provide us with bright reflections, blue shadows and pure, bracing airs.

ABOVE THE CLOUDS

Winter Climbers in the Lake District Survey the Scene in Bright Sunshine from Harrison Stickle

FROM THE SUN-BATHED SUMMIT OF HARRISON STICKLE: Two climbers look from the top of the 2,403-ft. Langdale Pike, in the Lake District, towards the Pike of Stickle which rises almost sheer above the Langdale Valley to a height of 2,323 ft. Away in the background, in the clouds, are the Bow Fell and Scafell ranges. On this particular day the clouds were low and in the valley the weather was dull and gloomy.

ABOVE THE CLOUDS IN BRIGHT WINTER SUNSHINE: Beyond the summit of Harrison Stickle the camera looks across the cloud-filled Langdale Valley towards Pike of Blisco and Crinkle Crags. *On left*—This view is looking westwards from Harrison Stickle towards Ambleside and Windermere which are shrouded by cloud.

Recently, when the weather in the Langdale Valley was dull and gloomy, Mr. A. F. Kersting set out to climb the Langdale Pikes which were already partly covered in snow and ice. With the extra care that is needed when climbing during the winter months, he followed the tracks which run close to the Dungeon Ghyll (a stream which descends from the Langdales in a series of waterfalls) and on his way to the summit of Harrison Stickle met two other climbers. They covered the distance to the summit together and within a short space of their goal emerged from the low-lying clouds into brilliant sunshine. From the summit of Harrison Stickle the three climbers were able to look across the hidden valley and above the clouds towards several other peaks of the Lake District. Mr. Kersting, who spent some time photographing the scene, later made his descent to Langdale Valley by way of one of the steep gullies which run down close to the Pike of Stickle.

A STATUE OF 600 YEARS AGO

A Chance Find of Great Interest in the City of London

The fourteenth-century statue which is now on permanent loan to the Guildhall Museum in London is attracting considerable attention, both for the method of its discovery and for what it is thought to represent.

Some two months ago, during work on the clearing of what was once the Church of the Minoresses of St. Clare, in St. Clare Street, in the City of London, three large fragments of statuary were unearthed. A member of the Department of the Historic Records of the London County Council recognised their worth and they were taken to the laboratory of the Guildhall Museum for cleaning.

The fragments when joined together form a headless statue which had probably been used after the Reformation as rubble to block a door of the church. The figure is made of limestone, is 2 ft. 11 ins. high and a foot wide at the base. It is draped in a long, flowing garment, decorated with small flowers or plants and painted vermilion. Over the dress is a cloak held at the neck by a band of rosettes.

Two important clues are given by the back and by the hand. The back is not sculptured. Therefore it is presumed that it was set against a wall and probably stood in a niche. The hand holds what appears to be the remains of a tablet. Taken together, these two indications are judged by experts to show that the statue was a Synagogue and would have had a prominent position inside or outside a church.

A Synagogue was a fairly popular subject of medieval carving. The figure was a woman who held in her right hand the tablets of the Law and in her left a broken staff. The implication was that the rule of Ancient Judaism had been superseded by the coming of Christianity. As an antithesis to Synagogue, Church (or the rule of Christ) was usually represented close by. Two statues of these types are to be seen by the Judgment Porch at Lincoln, and there is a Synagogue by the side of the Chapter Room door in Rochester Cathedral.

As to the date of the newly-found statue, expert opinion puts it at about 1335, a little later than the Rochester figure and some fifty years junior to the pair at Lincoln. The Minoresses (also known as the Poor Clares) were an order of nuns founded by St. Clare in 1212. They came to London at the end of the thirteenth century. Whether or not the Synagogue was an ornament of their church is a matter of conjecture. After the Reformation, sculpture was removed from numerous monastic churches in London and used indiscriminately as rubble. But it is certainly right that the Church Commissioners should allow the Guildhall Museum to keep the St. Clare Street figure on permanent loan among its exhibits.

A FOURTEENTH-CENTURY STATUE WHICH WAS DUG UP ON THE SITE OF A LONDON CHURCH: The figure consists of three fragments which have been joined together to form a headless body 2 ft. 11 ins. in height and 1 ft. wide at the base. Experts believe that the statue was carved about 1335 and represents a "Synagogue" (the medieval figure symbolising the supersession of Ancient Judaism by Christianity). *Right*—Mr. Norman Cook, Keeper of the Guildhall Museum, cleans the statue with a brush.

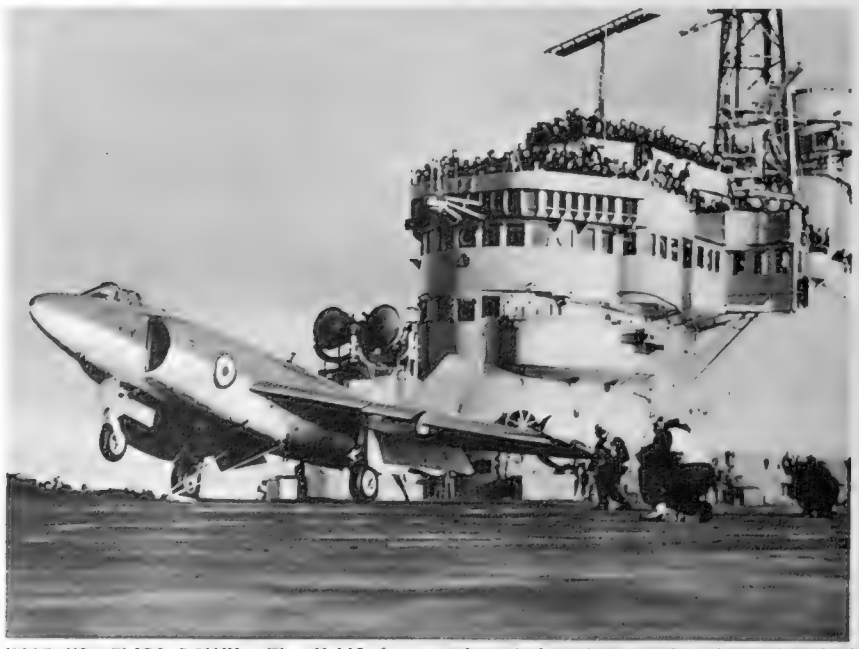
A SUPERMARINE N.113 READY TO TAKE OFF: The aircraft is seen on the starboard steam catapult of the *Ark Royal* during recent trials in the English Channel to assess its deck landing and handling characteristics. The N.113 is Britain's first aircraft to go into production fitted with super-circulation or "blown" flaps. The air-vents are the markings on the wings nearest the fuselage in the above picture. Air, ducted from the jet engines, is blown over the wing flaps to enable the pilot to maintain control at a lower speed than normal during the landing approach. The "flatter" angle of approach also improves the pilot's forward view.

"BLOWN" FLAPS FOR A NAVAL FIGHTER

The N.113 is Tested at Sea

The Vickers-Armstrongs Supermarine N.113 naval fighter-bomber has completed a successful series of deck landing and catapult launches using "blown" flaps. These have achieved an appreciable reduction in the approach and catapult launching speeds. The deck trials took place on H.M.S. *Ark Royal* off the South Coast early this month.

The N.113 is powered by two Rolls-Royce Avon turbo-jets. Each engine is fitted with a valve from which air is fed through pipes leading to the wings. The N.113 is one of the "next generation" of naval aircraft—and the fastest yet developed. It is capable of carrying tactical nuclear weapons.



NOSE UP, FLAPS DOWN: The N.113 is seen just before it was shot into the air by one of the *Ark Royal's* catapults. *On right*—The N.113 about to touch down. In order to land as slowly as possible carrier aircraft usually have to approach from a steeper angle than that shown. The "blown" flaps now fitted to the N.113 enable a more level approach to be made safely than has hitherto been possible. The excrescence below the aircraft's tail is the standard arrester hook.

PROGRESS IN KARIBA GORGE

A Great Engineering Project Takes Shape in Central Africa

ONE of the recent reports of progress in the construction of the hydro-electric scheme in the Kariba Gorge states that work is slightly ahead of schedule. This augurs well for the future of this gigantic enterprise in which several nations are participating to bring electric power to the Central African Federation.

Before relating the latest chapter in the Kariba story—one could not unjustifiably call it an epic—it is worth recalling the beginnings of this remarkable engineering feat.

Hitherto the electricity needs of the Rhodesias have been met by thermal generation. But the resources of necessary coal are limited. Even before the formation of the Central African Federation, it was clear that if the industrial potential of the area was to be realised, other means than coal would have to be sought. Fortunately they lay at hand in the waters of the Zambezi and its tributaries, which are ideal for exploiting hydro-electric power.

In January 1955 a panel of French engineering experts which had been making investigations into the possibilities delivered its report and suggested Kariba Gorge as a site which would constitute "a powerful provider of guaranteed energy at a price among the lowest in the world." After this, events began to move fast. Three months later Sir Godfrey Huggins (now Lord Malvern), the first Prime Minister of the Central African Federation, announced the decision to proceed with the Kariba project. Soon a number of engineering consultants were named, among them Sir Alexander Gibb and Partners, of London, and Merz and McLellan, also of London.

A SOURCE OF POWER FOR CENTRAL AFRICA: In the Kariba Gorge of Rhodesia, the River Zambezi winds past the first stages in the construction of a great hydro-electric scheme. Foot and road bridges have been built over the waters and behind them is a coffer-dam which will partially block the river so that work can begin on a section of the main 1,800-ft.-long dam.

The plans the consultants propounded are now becoming reality. The most prominent feature of the project is to be a great dam across the Gorge near the confluence of the Zambezi with the Sanyati River, one of its tributaries. The dam will be 1,800 ft. long and rise 400 ft. above the bed of the river. This will make it nearly 50 ft. higher than the Victoria Falls, farther up the Zambezi.

The purpose of the dam is to create a vast artificial lake or reservoir which will be 150 miles in length and cover an area of 1,600 square miles. It is believed this will be the largest artificial lake in the world. It will balance the flow of the Zambezi throughout the seasons, so that an even output of power can be achieved. Water will pass from the reservoir to two underground power stations sunk in the walls of the Gorge on each bank, after which it will flow back to the river below the dam.

But first of all the ground had to be prepared by two other spectacular engineering enterprises. One was the cutting of a tunnel for the diversion of the river waters so that the dam could be built. The other was the erection of coffer-dams (temporary dams) to block off part of the river so that the foundations of the major dam could be sunk.

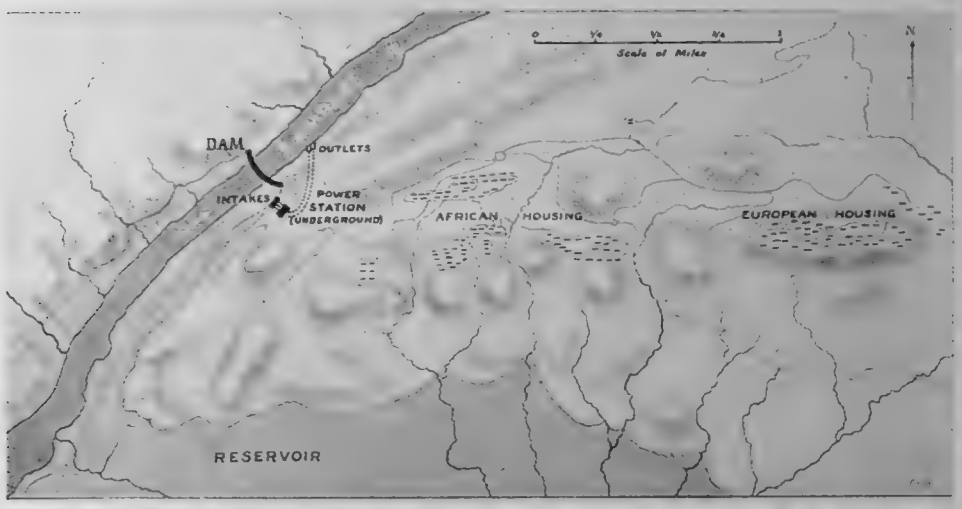
These, which may be termed the initial stage of the Kariba project, have gone some way towards completion. Those working on the tunnel suffered a setback when one of the entrances was blown up by an explosion and premature flooding resulted. The explosion also did damage to some of the works outside. However, this delay does not appear to have affected the progress of the whole construction programme.

***On left*—THE SITE OF A £113,000,000 PROJECT: Kariba Gorge, as the map shows, lies almost in the centre of the Rhodesias and is, therefore, excellently placed for supplying power to Central Africa. Started a year and a half ago the scheme, which will include the construction of the largest artificial lake in the world, is now well advanced. Firms of many countries, including distinguished experts in engineering from Great Britain, are assisting in the planning and the building.**

A coffer-dam can now be seen intruding in a semi-circle into the river. Its presence is a reminder of some of the ancillary activity which has been necessary to keep the project up to schedule. Notable among these is the building of roads. It must be remembered that Kariba was an isolated district until the investigating commission named it as the best site for an ambitious purpose. Labour on a grand scale and materials by thousands of tons had to be brought up. This required road construction. What was at one time a wilderness of woodland and scrub is now being rapidly transformed into a series of highways which can carry heavy traffic and will furthermore link Kariba with the important cities and towns of the Federation. As with everything else in the project, the greatest care and attention is being given to the making of these roads. Eventually some of them will cross the river by bridges. Another example of the pioneering spirit in Kariba is that at first the workers had to cross the waters and carry

(*Continued on following pages*)

CUTTING A ROAD: Bulldozers drive through the soil to make the south access road which will be crossed by bridges and drained so that it will be open in all weathers and at all times of year. Many miles of permanent roads are being made round the site of the Kariba dam project.



THE MAP OF THE DAM AND ITS SURROUNDINGS: The arrow indicates the course of the Zambezi and the site for the dam is marked by the thick black line. The area upstream of the dam, which is shown by a darker shade, will be flooded to form the artificial lake. On the heights above the power station have been built the separate African and European towns for the workers.

LEVELLING A HIGHWAY: Native workers prepare the surface before a new r clearing of woodland and scrub and it must be able to carry the hea system will link the completed project at Kariba Gorge with such importa

PROGRESS IN KARIBA GORGE

(*Continued from previous page*)

materials by an overhead cable. For bringing up personnel and supplies, a temporary airport is also in use. It is understood that this will no longer be used when the artificial lake is formed.

Kariba as it takes shape is without question a very significant project. Perhaps one can see the current chapter of its development in terms of what it is costing in money, what benefits it will bring to the area, how its construction should be measured in terms of human endeavour and how the native Africans look at it.

First of all, its cost. It is estimated that the entire project may cost in the region of £113,000,000. It is anticipated that the initial stages, which will bring into operation towards half of the eventual power capacity, will cost about £80,000,000. Some £28,000,000 is being lent by the World Bank and £18,000,000 is coming from the Colonial Development Corporation and other British sources. In Rhodesia, the Government, with banks and firms which will have a stake in the new power, are providing £34,000,000 between them.

What is going to be the result of this very great expenditure? In technical reckoning of power it will produce 1,200 mW. of electricity. Existing industries in the Copperbelt of the Central African Federation will be able to expand and a vast range of new industries will have the means of coming into being. Those who believe that only through industrialisation can the Africans' standard of living be raised on a grand scale will have their answer put to the proof. For those who consider the solution in Africa lies more in agriculture, this scheme also offers hope. A by-product of the creation of the artificial lake will be the irrigation of thousands of acres of the surrounding arable land by its waters.

The implementation of a scheme, even though it be a wonder of the world, cannot be regarded as progressing towards completion unless a tally is made of its worth in human as well as material advantages. The Kariba project is in British Commonwealth territory. Britain and British Africa can claim a large proportion of the credit for it. As has been already noted, French engineering experts carried out the preliminary investigations. French firms are to be found by the side of distinguished British engineers in the list of the consultants. An Italian combine of four companies, Impresit, are the main contractors, and British companies have numerous other contracts.

The consequence of this internationalism in planning and construction is reflected in the labour force at present engaged on the work. There are about 1,000 Europeans and between 6,000 and 7,000 Africans. The bulk of the Europeans are Italians. The Africans for the most part come from Nyasaland or Portuguese East Africa.

A point which has frequently been noted about the Italians is their willingness to be manual labourers. Side by side with a local African can often be seen a native of one of the immortal towns in which European law had its birth and European art its earliest masters.

This army of workers needs accommodation. On the hills above the Gorge two townships have arisen. One houses the Europeans, the other the Africans. Objections have been voiced about the African quarters. It would appear that the houses are now well up to the standard required for these tropical conditions. Medical facilities will include a hospital which is now being built.

It is on the reaction of African opinion that the future of the Kariba project really depends. The finest power station in the world would be useless unless those who should accept its benefits are ready to do so. Africans do not deny that the dam will bring the possibilities of great industrial prosperity. Nor can it be said that the wages of the Africans employed on the construction are anything but good.

Much criticism centres on the problem of the moving and resettlement of about 55,000 Northern and Southern Rhodesian Africans whose homes are in the area which must be flooded to create the artificial lake. This is a

AN ARTIST'S IMPRESSION OF HOW THE COMPLETED DAM WILL LOOK: The view is from the north bank of the Zambezi. On the left, at the edge of the river, are the outlets, nearly submerged. The intakes are below water-level above the dam, under the installation at the edge of the water on the far side. On the hill beyond is the transformer station.

s tarred. Its construction has required the widespread affic needed in the building of the dam. The new road res of the Central African Federation as Salisbury and Lusaka.

sizeable migration but, it is reasonably argued, it is better for them to be moved than for the whole of the Federation to be deprived of the advantages which should come from the electricity to be generated from Kariba.

It is also said that the African National Congress opposes the scheme because it associates it with the principle of Federation. This leads one into the overriding question of the future of the whole of the racial problem of the continent. Perhaps the more responsible Africans will recognise that Kariba has not been devised by a single power wedded to the obsolete and unworkable principles of old-fashioned Imperialism. It has been conceived and is being made a reality by some of the best engineering talents of Europe. One continent has gone to help another. If this can be appreciated then the advantages to be gained from an imaginative twentieth-century project will far outweigh its disadvantages.

(*Further pictures on following page.*)

THE DIVERSION TUNNEL: The excavator is dwarfed by the vast proportions of this most vital part of the Kariba Gorge scheme. The tunnel is 40 ft. high and 35 ft. wide. It has been driven through 1,000 yards of solid rock and will divert the waters of the Zambezi River to permit the construction of the dam. The tunnel was prematurely flooded by an excessive explosion.

PROGRESS IN KARIBA GORGE

On right—

HOMES FOR THE WORKERS : On the hills above Kariba Gorge a town has been built for the workers engaged on the project. When at full strength the labour force will consist of about 1,000 Europeans and 7,000 Africans. Most of the Europeans are Italians working for Impresit, the Italian concern which gained the main civil engineering contract. The majority of the Africans have been recruited from Nyasaland and Portuguese East Africa. Several thousand local Africans are being moved from their homes in the area which will be flooded for the project.

Below—

THE TEMPORARY POWER HOUSE : Generating sets and their parts are ready for installation. When the first phase of the Kariba hydro-electric scheme is finished in 1960 its installed capacity will be 500 mW. The total installed capacity for the project when complete will be 1,200 mW.

CROSSING THE RIVER : The overhead cableway is used for transporting men and materials over the Zambezi. A road bridge to carry traffic and a footbridge for the workers have now been completed over the river and are speeding the progress of the wall.

STARTING ON THE FOUNDATIONS OF THE DAM : The workers in the bottom left-hand corner are excavating the ground where the first section of the foundations of the dam will be laid. The huge structure will be 1,800 ft. long and rise 400 ft. above the bed of the river.

AFRICAN HOUSING AT KARIBA : The huts are for bachelor African workers. Every man has a sprung bed and a combined steel locker and table. The bachelors eat in communal dining-rooms.

DEFENCE OF ADEN

Pictures from the Latest Middle-East Trouble Spot

Aden is one of the few British footholds left in the Middle East. It is not surprising, in view of the situation after the Anglo-French intervention in Suez, that the border between Aden and Yemen should have become a trouble spot. The respective frontiers have never been properly defined and Yemen is putting out claims to considerable territory in the Western Aden Protectorate.

A familiar pattern is to be observed. Yemeni troops raid over the disputed border and the Aden authorities slowly but firmly take measures to defend the rights to which they are committed by the various treaties on which the Protectorate is founded.

There have been several occasions on which R.A.F. planes have given support to British or Aden Protectorate Levy troops operating on the ground.

Notable actions have taken place in the region of Manawa and at villages near Beihan, which had been occupied by Yemeni regular and irregular troops.

It is generally believed that the Yemenis are being incited by the Egyptians, with the encouragement from the Soviet Union in the background. However, at the end of last week it was reported that the Government of Yemen had requested talks with the Aden Government.

ON PATROL: A file of the Lancashire Fusiliers marches below the rugged rocks which line the Aden-Yemeni frontier. The regiment, stationed at Dhala, is playing an important part in this Middle Eastern trouble spot, where Yemenis are raiding over the border.

On left—
OFFICERS AND MEN OF THE NATIVE LEVY: The officers are seconded from the R.A.F. Regiment. They are with some of their men at Dhala airfield.

On right—
A NATIVE RULER: The Amir Sha'Fal controls the region round Dhala. He is one of the Sultans of the Western Aden Protectorate in treaty relations with Britain.

A CAMP IN THE DANGER AREA: The Aden Protectorate Levies' encampment at Dhala is a headquarters for the defence against the Yemenis. *On right*—Surrounded by walls the tents are the scene of much activity during the present tension.

A CENTURY OF PROGRESS?

Some Parallels and Contrasts between 1857 and 1957

By JOHN GORE

GUNBOAT DIPLOMACY—THE LORCHA "ARROW" AND THE BOMBARDMENT OF CANTON.—In the Speech from the Throne at the opening of Parliament at the beginning of 1857, the following passage offers a curious parallel and a violent contrast to the year 1957.

> Acts of violence, insults to the British flag and infraction of treaty rights, committed by the Chinese authorities in Canton, have rendered it necessary to have recourse to measures of force to obtain satisfaction.

This was the affair of the Lorcha *Arrow*. Enough to say that, on a trivial incident, in which our technical "rights" were very dicky, the Queen's local officer off his own bat declared war on China and ordered our fleet to bombard Canton. This outrageous act enabled Palmerston to register another brief triumph; carrying the vast majority of the nation with him.

A century ago "gunboat diplomacy" was indulging in its highest kick. There was no world-wide people's forum, no stirring of conscience. The row was confined to Parliament on a party-political basis. The nation hooted out of court those "craven Englishmen" prepared to "make the humiliation of their country a stepping-stone to power." (Gladstone, "Dizzy," Cobden and Grey in *those* days.) A century of progress? According to the view which living partisans take of modern instances of forceful measures against "insolent barbarians," they make up their minds on that poised question. But 1857 and 1957 came in on the same note in that particular opening bar.

In our domestic field a century ago social justice, humanitarianism and democracy were stirring in their sleep. Transportation as a penalty for crime died a natural death in 1857. The rotting hulks disintegrated. A blueprint for some vague form of national education was put up for examination, but its reception was luke-warm to laughter-raising. It had to wait another decade. In that year also the Gretna Green marriages were made illegal—except subject to severer conditions. Divorce also was brought within the reach of the poorest of Her Majesty's subjects by a bitterly contested Act. Before then, it had been a luxury of the rich. The poor rejoiced over a new freedom.

Plus Ça Change. . . .—An attempt to introduce life peerages (the Wensleydale case) was fairly easily defeated, resulting only in a subsequent acceptance of a few life peerages for law lords. That particular century-old controversy is just as lively in 1957. The same cool reception for new ideas shelved a proposal by an American gentleman to lay an electric telegraph line under the Atlantic. *Laissez faire* was the slogan in 1857. Cooler still was the reception of M. de Lesseps, who came over to England to explain his project for "constructing a ship canal across the Isthmus of Suez." Perhaps a majority of our ancestors saw further into the future than Disraeli.

In 1857 all these matters earned their paragraphs in the expensive newspapers, but in that dim and distant year the chief columns were reserved for more sensational events. If it was Palmerston's year, it was shared by Palmer, the Rugeley poisoner. But when the London season opened in May, reports from India of the progress of the Mutiny crowded minor sensations out of the news. A year which the politicians had expected to prove a quiet domestic affair was soon turned into a year of unusual anxiety and sensation overseas. It would be pleasant indeed if the prognostications of a hectic, troublous 1957 could result in a happier falsification than in 1857.

All Change Here?—*Le temps s'en va. Las! Le temps non, mais nous, nous en allons.* The generations pass all too quickly, but human nature is much slower to change than human fashions and institutions. The men and women who suffered at Cawnpore had nothing on their descendants who suffered in the blitz of 1940-42, in the qualities of endurance and courage. The difference lay only in hair styles and dress fashions and in conventions of speech and social manners. But whereas the events and tragedies at home and overseas of 1857 affected individuals rather than a whole nation, the impulse of their effects were but inconsiderable contributions to a slow-moving evolution. The trials of our own day were nation-wide; instant and conclusive factors in the swiftest of all our social revolutions.

If we present the surface appearance of a different race to that alive in England in 1857, historians and scientists acknowledge that we are no wiser, no braver, no happier and no better than our fathers. Like them we walk in darkness and in the shadow of death; like them we strive for peace and security which for ever elude us, and indeed in 1957 we seem to be very much nearer to the Dark Ages than our ancestors of 1857. They were still in the second quarter of a century of world peace. We have known nothing but world-war and rumour of world-war. If they economically were two nations, we politically are as bitterly divided into two. Our world is split into two ideological camps, bitterly at odds. Their world at least had the comfort of the conventional security of law and order, even if those blessings were maintained by the force and the power of the greater nations.

Oliver Twist Still At It.—In 1857 Dickens was at work exposing the hideous oppression of the underdogs. A hundred years on, the worst of the social injustices have been eliminated . . . and Oliver Twist is still asking for more! Asking for more, with a vehemence and a sense of right and justice which might suggest that the beadles and the guardians still wear their cocked hats and white waistcoats and maintain their iron rule over the underdogs, and that all the extra spoonfuls served out were but *hors d'œuvres* of the square meal which social justice demands. Still, Disraeli's "two nations" are at war and still the reformers rightly press for the clearance of the slums and the combing out of the underworld (which indeed still compares "favourably" with that of Sikes and Fagin).

THE MAN OF THE YEAR IN 1857: The seventy-three-year-old Viscount Palmerston was Prime Minister. He won widespread support from the nation by his orders to the fleet to bombard Canton, in China, after the affair of the Lorcha *Arrow*. This was a typical example of "Pam's" high-handed policy which fitted with Britain's mood of the times.

"No Better than My Fathers."—No, we are no happier than our fathers, even though the majority are infinitely more comfortable. Are we any wiser? Read your Sunday sensational newspaper from cover to cover (as you invariably do) and give a candid answer with your hand on your heart. Some of the things the die-hards said about the new idea of national education in 1857 must strike modern educationists as unbelievably reactionary. But the chromium-plated, vitaglassed senior schools (which put Eton into the slum category) must reckon the sum of their achievements against the background of the sensational Press and its ever-growing circulations. I doubt if we are yet wiser than our fathers.

Healthier, we certainly are. We live far longer and under better conditions in housing and diet. We live so long that in our congested island with its doubled population we can never keep up with housing and feeding problems. Whether the fact that we run faster, jump higher and longer, and throw and lift heavier weights than our grandfathers could do, is due to our improved health and diet or to scientific aids and training, I do not know. Certainly in 1957 we kill more on the roads than in 1857 we killed in wars, factories and mines. Physically and mentally, we are undoubtedly more elastic than the generations of 1857. We are much more ready to accept and digest new ideas. Elder statesmen fly the Atlantic without a tremor. Young and old accept astronomic speeds and air performance, and atomic potentialities for good and ill as commonplace and matter of course. A century ago, an age of *laissez faire*, any change was unwise and dangerous. It was widely believed that to attempt speeds greater than that of the latest stage-coach fliers would be fatal to health.

The measure of scientific advance in these fields in a century is no better revealed than in the realisation that when Peel was summoned from Rome to form a Government not much more than a century ago, he travelled home no faster than did Hadrian on a visit to Roman Britain. Science indeed has crammed into this past century advances ten times greater than in the previous millennium. But men have made no progress in governing themselves, and statesmen have lost the art or opportunity of governing nations and maintaining world order and international law. Ever easier and swifter communications were expected to improve international relations and bring understanding and fellowship among the nations. The very opposite has been the result. Distance, it seems, lent enchantment to our view of our neighbours. Close proximity has made the picture uglier and more terrifying, necessitating curtains and screens.

Palmerston was able positively to enjoy playing his reckless little slams, and he took added zest from the displeasure of his sovereign and the outraged world. Aristocratic government of a largely uneducated and voteless nation, immensely rich and powerful, had no terrors for him and added no wrinkles to his whiskered face. And the tough generation that beat up the tyrant "General Hyena" and applauded the slogan "*Civis Romanus Sum*" was not content with food parcels for those who suffered for freedom. To-day the successful statesman owes his success more to health than brains, for none of his problems is soluble.

Democracy while still half-baked, education while still effective only for reading headlines, the outlawry of gunboat diplomacy while putting nothing to take its place, have so bedevilled the technique of government that statesmanship has become a trade as dangerous as in 1857 was coalmining and factory work; and quite as little rewarding. The victims of 1857 at least made their bosses and country rich. The statesmen-victims of 1957 cannot adduce these altruistic compensations for their labours.

Plus C'est la Même Chose.—Britain was certainly in an era of transition in 1857. As certainly, despite the cramming of ten centuries of evolution into a single century, it is in an era of transition still. A century ago the urge was growing for freedom: among the factory workers from the tyranny of the bosses; in the country from the tyranny of squire, parson and village schoolmaster; among the paupers from the guardians and beadles. Certainly the *village* tyrants are dead. The squire is "out"; the church school dead. As John Betjeman put it:—

> The children have a motor bus instead
> And in a town eleven miles away . . .
> In a fine school with walls of vitaglass,
> Civics, eurythmics, economics, Marx,
> How to respect wild-life-in-national-parks,
> Mastics, gymnastics—thus they learn to scorn
> The old thatched cottages where they were born.
> The girls, ambitious to begin their lives
> Serving in Woolworth's rather than as wives;
> The boys who cannot yet escape the land,
> At driving tractors lend a clumsy hand . . .
> Squire, parson, schoolmaster, turn in their graves;
> And *let* them turn. We are no longer slaves.

The aerial on every second roof proclaims an emancipation, our cleverness, our high standard of living. Surface wisdom, paper money, uneasy, hollow freedom!

With the passing of the "bad old days," one useful asset passed little noticed and little appreciated. In 1857 still (with all allowance made for charges of narrowness and hypocrisy) a real belief in Heaven and Hell controlled the passions of men, the business morality of industrialists, the patience of workers, the training of youth, even international relations. Religion was a force in the 100 years of peace. And it may be that if that asset were still in our national treasury, 1957 could show greater advances and advantages over 1857.

IN DEFENCE OF THE GAS LAMP

The Residents of Kew and Richmond Protest Against a Corporation Lighting Scheme

VICTORIAN GAS LAMPS AT KEW GREEN: Residents of the houses round the greens at Kew and Richmond are petitioning against plans to remove the cast-iron gas lamps which have been there for over a century. As an economy move the Richmond Corporation is installing fluorescent lighting on concrete pillars in some of the side streets. The Kew campaign against Richmond Corporation's plan is being led by Mrs. Grimond, the wife of the Liberal leader in the House of Commons.

The plans of the Richmond Corporation to substitute fluorescent lighting on pre-cast concrete standards for the charming old Victorian gas lamps round the greens at Kew and Richmond have met strong opposition from the local residents. Protest petitions are being prepared in both areas and promises have been given by the Corporation that the complaints will have a hearing at the next meeting of the Highways Committee. Mrs. Grimond, the wife of the Liberal leader in the House of Commons, who is conducting the protest campaign at Kew, has said that "all the houses around Kew Green are scheduled under the Ancient Monuments Act. We are not allowed to alter a single feature of our houses." The attitude of the residents is that the present gas lamps harmonised with the eighteenth-century atmosphere and that the new lighting will destroy it. Similar protests against fluorescent standards have been made in other districts, notably in St. John's Wood, where yellow sodium lighting has already been installed in some of the charming, quiet streets.

PICTURESQUE AND FUNCTIONAL: A gas lamp at Kew Green with a new standard in the background.

A BORDER HIGHWAY

On right—

IMPROVEMENTS TO THE EDINBURGH-GALASHIELS TRUNK ROAD: A new scheme for the improvement of the Edinburgh-Galashiels trunk road throughout a mile-long stretch between Bowland and Galashiels is nearing completion. The project was originally planned some twenty years ago, but was postponed, first because of the war and then because of restrictions on capital expenditure. When completed the new stretch of the road will give a straight and safe approach into Galashiels from the north. The old road, most of which is still in use, was narrow and winding, and had a fairly high accident level, particularly during the winter months. The improved stretch was one of the worst sections of the old road. No minor improvements were possible and the stretch had to be tackled as a whole. The work began seventeen months ago and progress since then has been good. According to contract, the firms concerned have until August to complete the task, but it is well ahead of schedule and the new road is expected to be opened by the spring or early summer. Every effort is being made to preserve the character of the landscape. Both the Ministry of Transport and the Ministry of Civil Aviation are supporting the scheme with Roxburgh County Council as the organising authority. Cost will be approximately £80,000.

TECHNICAL TOPICS

Engineering and Military News from America and Italy

On left—
THE "TRAILBLAZER" IN TEXAS: Visitors to the seventy-first annual Texas State Fair at Dallas line up to board a monorail car named the "Trailblazer." The monorail line, three-quarters of a mile long, was one of the Fair's exhibits. The car is seen at one end of the line, picking up its passengers from a raised platform. The single rail is suspended from forty towers spaced 100 ft. apart. Plans have been announced for a 39-mile monorail line between Dallas and Fort Worth, and this form of rapid transport may well become a commonplace of the future.

Below—
PIPING GAS ACROSS A CONTINENT: A length of the trans-Canada pipeline, which is to carry gas for domestic and commercial purposes from one side of the country to the other, is prepared for sinking into the ditch on its right. On the left are three tractors used for moving the sections of pipe. Before being buried, the pipeline will be cleaned, primed and coated with insulation against the attacks of corrosion.

A "FISH" OUT OF WATER: A one-fifth scale model of the *Albacore*, the United States Navy's experimental high-speed submarine, is tested in a wind tunnel at the Langley Aeronautical Laboratory at Langley Field, Virginia. On left, a technician climbs a ladder to examine the model. Behind him can be seen the wind tunnel's fan. By observing and measuring its aerodynamic characteristics in the airstream, scientists of the National Advisory Committee for Aeronautics hope to answer problems concerning the submarine's behaviour in water and improve its hull shape for greater efficiency. The U.S. Navy plans to use the *Albacore's* unusual hull shape in four future submarines, one of them nuclear-powered. The latter's design will make it superior to the atomic-powered submarine *Nautilus*.

On left—
A PARACHUTE DROP IN THE ITALIAN ALPS: Standing out against a dark sky and a forbidding lunar background of snow-clad peaks, the white parachutes of Italian airborne troops descend in the Italian Alps. The drop was made on to a snow-covered plateau lying at an altitude of 7,000 ft. during below-zero manœuvres in the presence of the Italian Minister of Defence, Signor Paolo Taviani. The exercises were a part of the routine winter training of the Italian Army. The soldiers were the famous Alpini, of the Tridentina, Orobica and Cadore brigades. The Alpini regiments are specialists in mountain warfare who have proud traditions of service to Italy dating back for centuries, and they are now undergoing training in airborne attacks in their chosen terrain. In wars of the past, skis, the mule and their own hardihood, agility and training have helped the Alpini to overcome the obstacles of snow and mountain, but now they are able to strike farther and faster than before. Special paratroop units of company size have been attached to each regiment of Alpini, since a few years after the last war.

On left—
RADAR FOR THE AMERICAN ARCTIC: A huge parabolic radar antenna, 61 ft. in diameter, points skyward at the Stanford Research Institute, Palo Alto, California. Technicians stand in the doorway of the control hut on the left, while another examines the apparatus. The antenna is to be shipped to Alaska, where it will gather information concerning radio signals originating in meteorological phenomena. It will form part of a radar installation located at Fairbanks. The antenna, constructed of aluminium, is designed to resist winds of a force of a hundred miles an hour.

On left—**ICE HAMPERS THE BRIDGE-BUILDERS:** Although some of the erecting equipment is in position, the middle section of this bridge, which crosses the Straits of Mackinac at St. Ignace, Michigan, cannot be finished. Most of the bridge's length has been completed, but masses of ice, such as those in the foreground, are hindering operations.

Above—**AN AERIAL TAXI SERVICE IN VENEZUELA:** This cable car, shaped like a hurricane lamp, carries six passengers at a time to and from the Humboldt Hotel (left background), a tower-like building of fourteen stories on Mount Avila, near Caracas. The cable to the hotel is a branch of a five-mile line connecting Caracas and the Caribbean seaside.

A NEW FAST CRAFT FOR SOUTH AMERICAN WATERS: The Shell Company of Venezuela's new passenger launch, built by John I. Thornycroft, undergoes high-speed trials on the Solent near Southampton. Designed to carry about fifty people, it is under 68 ft. long, but has a speed of over 30 knots. The launch has a displacement of 32 tons. Its engines are of only 1,620 h.p., giving the vessel a very economical performance for its size and speed. It will operate on Lake Maracaibo.

A HIGH-SPEED CRAFT FOR VENEZUELA

A New Launch is Tested on the Solent Before Delivery to the Shell Company of Venezuela

THE STEERING SHELTER: The three windscreens are fixed, each being fitted with a circular "Kent" clearview screen. There is extra seating for passengers on each side of the wheel.

THE LAUNCH PASSES AT SPEED: In the background is the shoreline of the Solent. The engines the vessel uses are small versions of the Napier Deltic diesels developed for the Admiralty and British Railways. They are extremely efficient. Many naval craft of the same size and speed need engines of thrice the power output.

A new, small but very fast passenger launch built by John I. Thornycroft, the shipbuilders, was recently tested on the Solent near Southampton before being delivered to the Shell Company of Venezuela for use on Lake Maracaibo. The vessel is only 67½ ft. long, but has the turn of speed of the fastest ocean liners—over 30 knots. It is equipped with twenty-three bus-like passenger seats in an enclosed cabin, each seating two people. The 32-ton craft has a very economical performance for its size and speed, for the two engines total only 1,620 h.p. Naval vessels of the same size and speed generally need three times this power. These engines are small versions of the Napier Deltic diesel, a power unit of unique design and very good performance developed for the Admiralty and for British Railways. The hull design is a compromise between the type used in speedboats and that employed in bigger ships. It is very strong, for on Lake Maracaibo, sunken logs are a perpetual menace to small ships. On the lake, the Shell Company prospects for underwater oil from oil-drilling platforms like artificial islands. The launch and others like it will be used to carry workers on the platforms to and from the shore. The distances involved are between 20 and 40 miles.

On right—

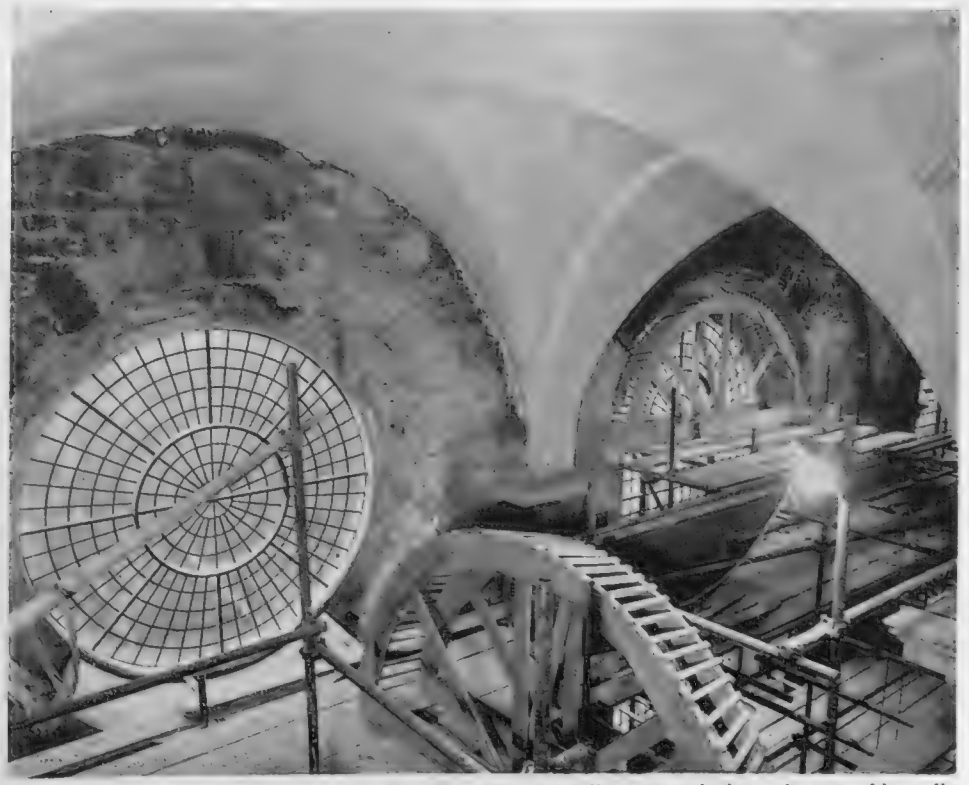
A VERY FAST "BUS": The launch will carry workers between the shore of Lake Maracaibo and the Shell Company's oil-drilling platforms used in the search for oil beneath the surface of the lake.

HIGH UP INSIDE THE LONDON CHURCH OF ST. BRIDE: Craftsmen are at work on the vaulted ceiling of the church, which is now being rebuilt after extensive wartime damage, to the design of Mr. W. Godfrey Allen, formerly Surveyor to the Fabric of St. Paul's Cathedral. The original plans of Sir Christopher Wren of 1680 are available and are being followed in detail, subject to minor adaptations dictated by modern conditions. It is hoped that the basic restoration work will be completed by the end of this month and that the church will be ready for re-hallowing by the autumn. The seating will be in the collegiate style, running from east to west, and there is a proposal that the north aisle should be made into a Press Memorial Chapel. There will only be one gallery in the new church and this will be placed at the west end. Before the rebuilding, extensive excavations on the site revealed the remains of at least five earlier churches, including their extensions, dating to Saxon times.

ST. BRIDE'S RISES AGAIN

The Basic Work of Restoration in the Celebrated Fleet Street Church Nears Completion

PREPARING THE CEILING: Sections of fibrous plaster are being placed in position on the main coffered arch. Extensive scaffolding has been erected inside the church for the work. The old building was destroyed in 1940.



WINDOWS PREDOMINATE THROUGHOUT THE BUILDING: As well as several along the two side walls there are also the windows of the clerestory. *On left*—With a model beside him a carver is busy on one of the many decorative shields for the pillars. St. Bride's remains a parish church under the reorganisation scheme for the City churches. It has two guild churches.

THE ART OF THE DOLMETSCH FAMILY

Musical Instruments are made in Surrey Under the Direction of a Great Virtuoso

A UNIQUE WORKSHOP IN SURREY: In this room of the firm of Arnold Dolmetsch, at Haslemere, a clavichord is being tuned in the foreground and in the centre the top is being fitted to a triangular harpsichord. The Dolmetsch family is renowned throughout the world for its making and playing of these and other instruments.

The harpsichord, spinet, virginal, clavichord, lute and recorder—these are names of musical instruments of the past which are enjoying a flourishing vogue to-day. The reason for this fashion, at any rate as far as Britain is concerned, is undoubtedly to be found in the Dolmetsch family. Not only are its members experts at musical execution—some are internationally-renowned virtuosi—Dolmetsches also make the instruments.

A visit to Haslemere, in Surrey, introduces one to a rare centre where the artist is also craftsman—the headquarters and home of the Dolmetsch family. Shortly before the Great War the late Arnold Dolmetsch, who had been born in France, settled in Haslemere. Eleven years later he and other members of his family started the series of Haslemere festivals which have done so much for English music-lovers who look back over the dreary days of "German imitation" to the origins of English music.

Arnold Dolmetsch both played and made. He felt, very rightly, that the artist's instrument should be part of his art. So he established the firm of Arnold Dolmetsch. Within a few years many Englishmen were discovering the delights of the instruments upon which the Tudors performed with such skill, especially the wooden flute or recorder.

The Arnold Dolmetsch tradition is being carried on in the fullest measure by his son, Carl Frederick. C. F., who was born in 1911, was brought up from his infancy in all the arts and crafts of his father. He made his first concert tour at the age of eight; he was broadcasting on the violin and viol at the age of fourteen, he was a virtuoso recorder player a year later. Now he is regarded as a unique figure in the world of music. It would seem that the Dolmetsch genius cannot die. For Carl Frederick already has in his own family of children, whom he has trained, a chamber orchestra which appears on concert platforms.

The Haslemere workshops are under the control of Carl Frederick Dolmetsch and his fellow directors of the firm of Arnold Dolmetsch. Nowadays the craftsmen enjoy the delight of the creation of new instruments and maintain with loving care many of those made by Dolmetsch in the past.

MAKING A RECORDER: Mr. Donald Clarke drills the finder holes in a section of a treble recorder. This type of flute has been popularised by the Dolmetsch family.

THE TONE FOR A HARPSICHORD: The tool is being held to cut the plectra of an eight-pedal harpsichord, so that the instrument will have the correct tone.

CARL DOLMETSCH AND FAMILY: The great virtuoso is at the harpsichord surrounded by his children playing recorders. Mr. Dolmetsch is internationally known as a player of most instruments the firm makes.

On right—

REPAIRING A VALUABLE INSTRUMENT: In the Dolmetsch workshops a craftsman repairs a triangular harpsichord which bears the inscription of the date of its creation "Arnold Dolmetsch, 1928." It is the property of the B.B.C.

A ROYAL MARRIAGE IN FRANCE

Princess Hélène of France is Married to Count Evrard de Limbourg-Stirum of Belgium

THE CIVIL MARRIAGE AT LOUVECIENNES, NEAR PARIS: Princess Hélène, the second daughter of the Comte de Paris, the French Pretender, signs the register after her civil marriage to Count Evrard de Limbourg-Stirum (on left). A religious ceremony took place later.

THE BRIDE AND HER FATHER: Princess Hélène walks down the aisle of the Royal Chapel on the arm of her father, the Comte de Paris, the French Pretender, for her marriage to Count Evrard de Limbourg-Stirum.

THE RELIGIOUS CEREMONY AT THE ROYAL CHAPEL OF DREUX, NORMANDY: Princess Hélène arrives on the arm of her father, the Comte de Paris, for her marriage to Count Evrard de Limbourg-Stirum at the old Royal Chapel of the House of Orleans at Dreux, in Normandy. Three hundred guests took part in the religious ceremony, among them being Queen Frederika of Greece, Princess Alexandra of Kent and Don Juan Carlos, Prince of Asturias and heir to the Spanish throne. The nuptial ceremony was performed by Monsignor Michon, Bishop of Chartres. The bride's procession entered the chapel after having walked across from the Bishop's house in the grounds. It was headed by Prince Thibault of France, aged eight, the bride's stepbrother, who carried the Princess's prayerbook.

On left—

A QUEEN AMONG THE GUESTS: Queen Frederika of Greece follows the wedding procession of Princess Hélène and Count Evrard with her son Prince Michael. Before travelling down to Dreux for the religious ceremony the bridal couple went to Mass and Communion with their families at the bride's parish church at Louveciennes, outside Paris. The Princess then drove with her mother, the Comtesse de Paris, to Dreux.

PRINCESS ALEXANDRA OF KENT LEAVES AFTER THE WEDDING: Accompanied by her aunt, Princess Olga of Yugoslavia, on left, Princess Alexandra leaves the Royal Chapel at Dreux after the religious ceremony.

AT THE ALTAR RAIL: Princess Hélène and Count Evrard stand before the altar during the nuptial ceremony. On the extreme right is Don Juan Carlos, Prince of Asturias and heir to the Spanish throne, with Prince Henri of France. Prince Henri is himself engaged to Duchess Maria-Theresa of Wurtemberg.

THE ZOO'S NEW ANIMAL HOSPITAL

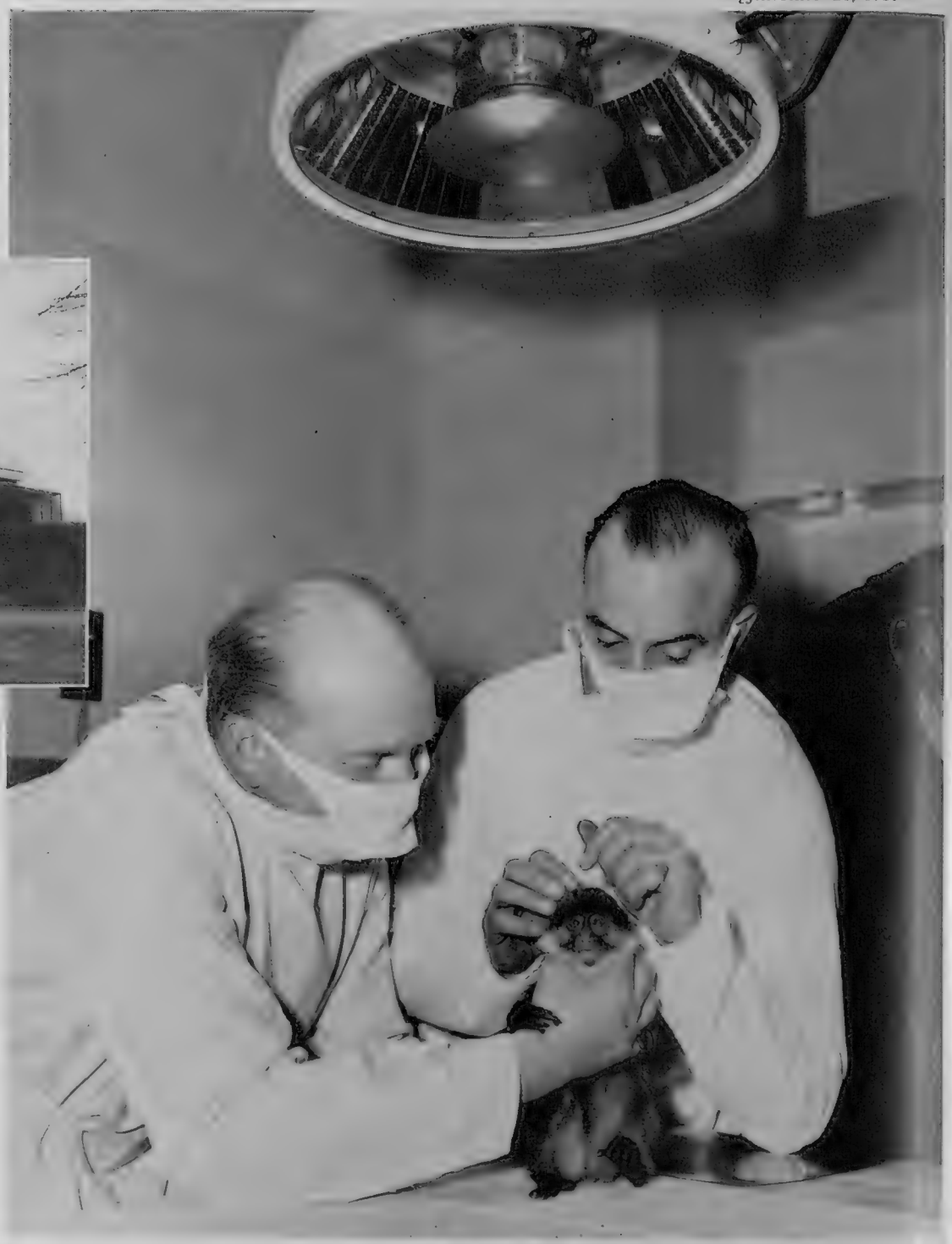
A Unique £50,000 Building is Open in Regent's Park

THE WORLD'S MOST UP-TO-DATE SANATORIUM FOR ANIMALS: The new hospital at the London Zoo is unique for its modern equipment and design. On the balconies convalescent patients can take the sun. In the building are an operating theatre, dens and treatment wards.

The Zoo's hospital is almost certainly the most modernly-equipped animal treatment and quarantine centre in the world. It is also probably the only hospital able to treat a wide range of wild animals, and it is claimed that it is capable of dealing with anything from a mouse to a tiger.

Mr. F. A. Stengelhofen, the architect of the Royal Zoological Society, has designed a two-storey building. On the ground floor are offices and storerooms, an operating theatre equipped with X-ray and anaesthetising apparatus, and twenty-one dens for big animals. Upstairs are two animal wards. One is kept at a constant temperature of 65 degs. and the other at 75 degs. Outside them are sun balconies for convalescent patients.

In charge of the hospital is Mr. O. G. Jones, the Curator of Mammals and Veterinary Officer at the Zoo. His staff includes five nursing attendants. Since they moved into their new quarters, they have had to deal with a number of difficult cases. Among them were a llama with a badly fractured leg and a " foundling " parrot left in a box on the Zoo doorstep in a shocking state of health. The staff find that animals, like humans, vary in their attitude towards going into hospital. Some are alarmed, others arrive with the evident intention of enjoying their ill-health and seem to prefer the ward to the life in a public cage.



ON THE OPERATING TABLE: A monkey is examined in the operating theatre by Mr. Wilson (left), Chief Animal Attendant, and Mr. Jones, Curator of Mammals and Veterinary Officer.

ON THE SUN BALCONY: At the open door of the Small Animal Treatment Ward Mr. Wilson holds an American marten and beyond, on the sun balcony, Mr. S. G. Smith observes monkeys with skin troubles in the cages. The hospital in Regent's Park, which is part of the Zoological Gardens rebuilding scheme, cost £50,000.

RECOVERING FROM A FRACTURE: June, the llama, underwent a bone-setting operation after fracturing a foreleg, now encased in plaster. The hospital can deal with most wild animals.

LONDON "GROWS UP"

New Blocks of Flats in the Finsbury Area Change the Familiar Skyline

A DOMINATING FEATURE IN THE BOROUGH OF FINSBURY: Great Arthur House is a sixteen-storey block of flats built by the Corporation of London to form part of the Golden Lane Housing Scheme. It towers above other blocks of flats and the derelict New Jewin Welsh Chapel. When finished, the block, near the Barbican, will be the tallest residential building in the City. According to the architect's specifications Great Arthur House will be 200 ft. high and will contain 120 separate flats. Estate offices and laundry rooms for the block will occupy the ground floor. The two winged concrete projections of the structure which crowns the building house water storage tanks with an estimated capacity of 5,000 gallons. The central part of the section contains the boiler flue for the entire building and the lift motor rooms.

On left—

ANOTHER NEW SKYLINE IN FINSBURY: The two tall blocks of flats and other new residential buildings are part of the estate which is being built by the Peabody Trust for Finsbury Borough Council. It is situated near the Golden Lane Housing Scheme.

ORGANISATIONS NEW AND OLD

The Chairman of the A.A. Suggests a World-Wide Motoring Organisation; The R.A.C's Diamond Jubilee; the Institute of Advanced Motorists Issues Statistics

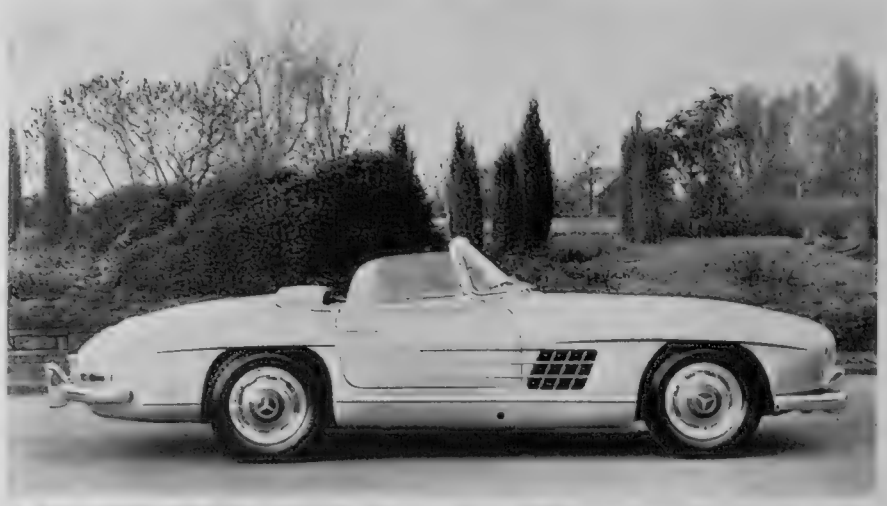
By "THE SPHERE" MOTORING CORRESPONDENT

A PLAN for a world-wide motoring organisation was recently announced by Lord Teynham, chairman of the Automobile Association. He gave the news in Singapore during a Commonwealth tour in which he is laying the foundations of this "global A.A." It is proposed that the nucleus of the organisation shall be the A.A. and its sister bodies in about fifty different Commonwealth countries already affiliated to the pioneer British association.

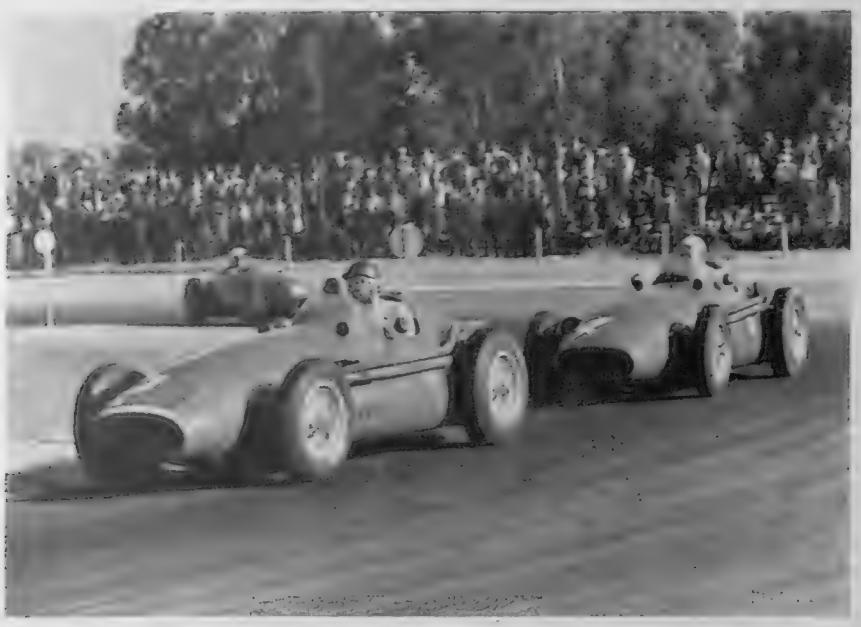
Lord Teynham is reported as saying that a world body of this nature would put motorists in a stronger position in dealing with Governments "which don't always treat us as we think they should." The biggest immediate benefit of the scheme is that an A.A. member visiting any country whose motoring association is part of the world organisation would be treated exactly like a member of that association and share all the facilities of its own members.

Similarly, a motorist visiting Britain from a country participating in the scheme would—provided he was a member of his home organisation—become in effect a full member of the A.A. as long as he was in this country.

Congratulations to the Royal Automobile Club! It celebrates its diamond jubilee this year after sixty years of invaluable service to motorists in general and to motor sport in particular. When launched in 1897 it was known as the Automobile Club of Great Britain and Ireland. Queen Victoria was still on the throne, with four more years to go. The Boer War had not yet begun. Whisky was threepence a glass. Since it became the "Royal" Automobile Club in 1907 every British monarch, including the present Queen, has been the Club's patron.



A NEW MERCEDES ON THE WAY: The Mercedes-Benz 300 SL, probably the most powerful production car on the market, is soon to be available in roadster form, as illustrated above. Apart from having an open body, the new model is similar in other respects to the current 300 SL. Its 6-cylinder engine is fed by fuel injection. The roadster will be shown to the public for the first time at the Geneva motor show in March.



FANGIO TAKES THE LEAD: Juan Manuel Fangio, driving a Maserati, leads Stirling Moss, also in a Maserati, round a corner in the Argentine Grand Prix. The Argentinian driver went on to win. Fangio, the motor-racing champion of the world, thus added yet another victory to his long list of successes. Jean Behra, of France, was second and Menditiguy, of the Argentine, came in third, out of a field of fourteen cars.

One of the Club's historic achievements was the staging of Britain's first international motor show. It was held in the Old Deer Park, at Richmond. The R.A.C., whose present chairman is Mr. Wilfrid Andrews, doughty campaigner for better roads, is the controlling body for all types of motor sport in Britain and the Commonwealth. It regulates the organisation of every kind of event from rallies to races.

While on the subject of the R.A.C.'s diamond jubilee I should like to wish a very happy retirement to Captain A. W. Phillips, M.C., who has just relinquished the job of general manager of the Associate section. "Phil," as he is widely known, has been a staunch friend of the motorist, behind the scenes, for a great many years. His work on the Standing Joint Committee of the three motoring organisations—R.A.C., A.A. and Royal Scottish Automobile Club—was always characterised by sound judgment and an instinctive resentment of any attempt to impose new restrictions on the motorist. The S.J.C. will miss Phil's sage counsel and tough spirit. So will the R.A.C.

With the cost of living going up all the time it is a special pleasure to hear of a reduction in the price of anything. Silver City Airways' New Year gift to motorists was a big reduction in fares on their car-ferry services across the English Channel. Some of the cuts exceed 30 per cent. The routes affected are from Ferryfield (near Lydd) to Le Touquet, Calais and Ostend; and from Southampton to Cherbourg and Deauville.

The new Silver City fare structure now has three categories: for peak summer week-ends; cheap mid-week travel during the rush season; and extra cheap off-peak flights. Single fare reductions range from 10s. to £9 10s. They apply to cars only. Passenger fares are unchanged. Here are a couple of examples of how the lower fares work out: a Ford Prefect and two passengers travelling from Ferryfield to Le Touquet mid-week in August will be charged £27 2s. return, as against £29 12s. in 1956. That is a drop of £2 10s.

At week-ends in August the new cost is £28 12s.—£1 cheaper than last year. If you have a big Bentley and take one passenger with you (two occupants in all), you will have to pay £52 2s. return for mid-week August travel, compared with £59 12s. last year. Early summer travel would cost you £45 2s. return instead of £55 12s. Silver City are expecting more motorists than ever to take their cars to the Continent for holidays this year. Reason: more petrol is expected to be available on the other side of the Channel for holiday tourists from Britain than they are likely to get if they spend their holiday in their own country.

The Institute of Advanced Motorists has issued some illuminating statistics about driving standards. They are based on the experiences of its examiners during the first six months. Up to the time when petrol rationing curtailed the Institute's activities, it tested a total of 4,072 drivers who were anxious to claim a high standard of driving skill. Of these, 2,549 passed and 1,523 failed.

A close analysis has been made of the tests undertaken in the five weeks immediately preceding rationing. On the whole, men proved themselves better drivers than women, the vital figures being: men, 69 per cent. passed, 31 per cent. failed. Women: 57 per cent. passed, 43 per cent. failed. The women's average was brought down by the over-forties. Below that age the women did almost as well as the men, with 70 per cent. of success against 71. Success percentages for the over-forties were: men, 67, women, 44. I was particularly interested in the Institute's analysis of its failures. Here it is:

	MEN %	WOMEN %
(1) With faults capable of self-correction after explanation	18	16.5
(2) Insufficient knowledge of advanced standard	64.5	65.5
(3) Conduct on the road potentially dangerous	16.75	18.5
(4) Would have difficulty in passing Ministry of Transport test	1.75	0

Women drivers may be tempted to crow a little over that nought. But if we break down the ages to under and over forty we find that as many as 26 per cent. of the over-forty women failures were "potentially dangerous" compared with a figure of 16½ for the men. Among the under-forties the figures are the other way round: men, 16½; women, 11 per cent. These remarks must not be interpreted as a blind masculine attack on women drivers. I am merely quoting figures and am not even gloating.

If I may be permitted a humble expression of personal opinion after driving many different cars many miles for a good number of years, it is this: relative to their total number there are more good, careful women drivers than men. The percentage of really first-class women drivers is lower than their male counterparts. And when they are bad, they are very, very bad.

The motor-racing season is under way. They have already got off the mark on the other side of the world—in New Zealand and in Argentina. Over here we must wait until the Mille Miglia in mid-May for the first of the classic international events. And drivers thirsting for points towards the world championship will not have a chance of picking any up in Europe until the following week-end, when the Monaco Grand Prix is due.

In the first of the *grandes épreuves* the Argentine Grand Prix in Buenos Aires—there were no British cars. At Monte Carlo it will be different. There may be three British teams: Vanwall, Connaught and B.R.M. The main hopes of British fans are, of course, pinned to the Vanwall, whose drivers this year will be led by Stirling Moss, backed up by Tony Brooks, the young Cheshire dentist who is proving one of Britain's best. With Moss driving the much-improved Vanwall and Peter Collins operating as No. 1 Ferrari driver for Italy, Britain has a double chance this year of winning the world championship for the first time.

Both Moss and Collins came close to gaining the world crown last year. Nor must we forget Mike Hawthorn. After a long run of bad luck of various kinds he may be due for better success this season. He is a team-mate of Collins in the Ferrari *équipe*; and with world champion Juan Fangio operating as a free lance this year, we seem assured (petrol supplies permitting) of a lively season.

MAKING THE ROADS SAFER: In an experiment designed to reduce accidents on dangerous bends and hills, the Ministry of Transport has added broken white lines to the existing continuous lines at this point on the road between London and Maidstone. A motorist travelling away from the camera is allowed to pass another car only while he has a broken line on his side of the road. After the line ceases on the slopes of the hill in the background, he must not pass. The same rule applies in the reverse direction.

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THE LAND IS BLOWN AWAY: Dust clouds drift over a drought-stricken farm in Texas. Almost all the vegetation has been killed by lack of water, leaving little but a desert. Huge areas of six south-western states of the U.S.A., recently toured by President Eisenhower, have been devastated by eight years of drought and erosion.

A NEW "DUST-BOWL" IN AMERICA

Eight Years of Drought and Erosion Ruin Large Areas in Six South-Western States

For nearly eight years vast tracts of the south-western United States have been gripped by drought. A "dust-bowl" has spread over thousands of square miles of land in Texas, Oklahoma, New Mexico, Arizona, Colorado and Kansas. President Eisenhower recently carried out a 4,600-mile flying tour of inspection of the stricken districts. The high prices and good rainfall of the war years led farmers and graziers in the area to forget the hard lessons they had been taught by the "dust-bowl" conditions of the '30's. Cultivation and grazing were far too intensive, resulting in soil erosion which has made worse the distress caused by the drought. Although wartime prosperity softened the economic blow and the land has not been abandoned on the same scale as twenty years ago, nearly 100,000 people are living on Federal relief in Texas alone. Two hundred and thirty-five of the State's 254 counties have been classified as "disaster areas," and in one county five-eighths of the population are "on the dole." In trying to prevent tragedies on this scale, the Federal Government is encouraging State and local authorities to co-operate with it in irrigation and conservation projects designed to save as much water as possible.

THE PRESIDENT TOURS THE DROUGHT AREAS: Mr. Eisenhower looks down from his plane on to the ruined areas. Leaning over his shoulder is Mr. F. A. Seaton, Secretary of the Interior. On right is Mr. E. T. Benson, Secretary of Agriculture.

On left—

A TEXAN FARMER LOSES HIS CROP: He kneels in drifts of fine sand which have stifled and killed the maize.

FEEDING THE HUNGRY CATTLE: With all the grass and vegetation dead, the lean cattle and other suffering livestock must rely on cactus from which the thorns have been burned away with butane gas, and on winter fodder.

THE FARMER STICKS TO HIS LAND: Even though most of it is covered in inches of sand, this farmer with his tractor still ploughs his land hopefully. Everything for miles around is dead or dying from lack of water. In Texas alone 100,000 people are living on Federal relief.

The World of Books—By VERNON FANE

BEACHCOMBERS AND BIG FAMILIES

Three Unusual Tales of Family Life; Literary and Nautical Biographies; some Contemporary and Historical Novels; and a Selection of Detective Stories

BEACH-COMBING is one of the activities that one associates with a tropical climate, coral reefs and a life of the least possible effort. In fact, scarcely an activity at all, in the stricter meaning of the word. Now comes an odd and amusing life-story to reverse all previous opinions and, incidentally, to provide some hours of fresh and entertaining reading. LADY ON THE BEACH (Redman. 15s.) is by Mrs. Norah Berg, the lady herself, and Mr. Charles Samuels, who is a reporter, who spent six weeks on the beach with Mrs. Berg and her husband, a retired sergeant of the U.S. Marine Corps.

The beach is in the State of Washington and therefore subject to opaque sea-fogs, storms and the kind of bleakness associated with the United States north-west. The Bergs were living in a shack on the beach when Mr. Samuels came to call and, as the book closes, they have plans for moving to another Pacific beach where the clams and the driftwood alone would share their solitude. The conversation—reminiscent, spirited and appropriately salty, as it is conveyed in this book, is both funny and tough. I don't suppose that any of the Berg-selected beaches are likely to figure in a travel brochure, but life on them must have been far from dull. As for such neighbours as existed, they were less likely to swap recipes for cup-cakes than reminiscences of old Norway or sanatoriums for the mentally ill. Or, in beach-ese: "trick-and-puzzle joints." Whatever the antithesis of complacence is, Mrs. Berg learned it in her earliest years on the beach and Mr. Samuels has been able to help her demonstrate it.

Miss Shirley Jackson's book, RAISING DEMONS (Michael Joseph. 12s. 6d.) is very articulate proof that however difficult it may be to write about children faithfully and evocatively, it can be done. This book, in fitting American idiom, really is a honey. The household of which it treats consists of four children, two of each, a father who is a don, and a mother who is not so preoccupied by household responsibilities (for which read "chores") that she is incapable of writing wittily about her family's problems. I don't think that one could regard a week-end in that house as a rest cure; but equally I don't think that anyone need lose sleep about that, because, just possibly, Miss Jackson's family have no room for anyone but themselves.

PAPA'S WIFE (Hutchinson. 18s.), gives the reader an alarmingly clear picture of what happens when a loving and strong-minded couple are blessed with eight lusty children. In a rather timid foreword Mrs. Thyra Ferre Bjorn explains that this family chronicle is fiction based upon fact. The author is the mother of these eight children, who may be assumed to be normally sensitive and to have long memories. This is a more moving though less witty book than the last and deserves to be enjoyed in the way that the Bjorns have enjoyed their close-knit family life.

It is not always clear why the lives and biographies of poets and writers and, latterly, painters, should be of such wide and popular interest, but there it is. We have still to hear of readers curling up with a good book on a bio-chemist. The next two books may be examples of this trend, even if they do not wholly explain it. THE LIFE OF HILAIRE BELLOC (Hollis and Carter. 30s.), by Mr. Robert Speaight, the actor, is announced as the official biography, written at the request of Belloc's literary executors. As we know from experience, a pious selection of this kind, inferring that private papers have been available to the writer and that he has had some kind of statutory blessing, does not always mean that the resulting book will be a good one. Belloc, though, was not only a poet but the most vital and human of creatures, and this biography of him, however respectful, cannot fail to reflect some of Belloc's warmth and splendid intransigence.

AN UNDERSEA SPELEOLOGIST: A diver equipped with frogman's gear swims into the entrance of an underwater cave. This photograph is one of the illustrations in *Caves and Cave Diving*, by Guy de Lavaur (Robert Hale. 16s.), in which the author describes his adventures while exploring caves beneath the earth and the sea. The whole range of techniques used by French speleologists is covered.

Any reader who has read Lord Byron's poetry, looked at one of the many biographies or had the stimulating experience of studying even a brief edition of the poet's letters, must have speculated about the question of his deeply unhappy marriage to "the Princess of Parallelograms." Byron had his problems and Miss Milbanke must have had hers, but, in a new study, LORD BYRON'S MARRIAGE (Routledge and Kegan Paul. 30s.), Mr. G. Wilson Knight attempts to give them a fresh interpretation. He bases his work on letters and on poetry of which some, like the two "Don Leon" poems, are scarcely known. Mr. Knight's conclusions will not shock the firmest admirers of Byron but they may find them difficult to accept, as I do.

A SEA AFFAIR (Hutchinson. 25s.) is an utterly different kind of life story: the autobiography of Captain D. G. O. Baillie, who recently retired as Commodore of the P. & O. Fleet. From the days of his training in the old *Worcester* where, if a boy complained, he was met by the devastating retort: "What are you grumbling at? It will be far worse than this when you get to sea!", to the command of the 20,000-ton mailship *Himalaya*, Captain Baillie has pursued a sailor's course. The record of his career has much in it of danger and excitement and even more of a human attitude towards the problems that do not arise exclusively at sea.

Biggest, possibly best and certainly the most impressive among the novels is Miss Rebecca West's THE FOUNTAIN OVERFLOWS (Macmillan. 16s.), a long, rich, closely-woven book which, we are to understand, is to be the first of a series on the same family and the same characters. But although the final publication may be as long as a Proustian chronicle, I cannot see that it will have much in common with it. Although Miss West recalls the days of youth and of first influences with immense detail and delicacy, she is still the artist in her own right, the creator rather than the adapter.

The first book of what promises to be an enormous work begins in Scotland and continues in a dull, respectable suburb of London to which the family of mother, three girls and a baby boy move when their brilliant and unpredictable father finds yet another job, this time as leader-writer on a local newspaper. The mother is a musician of some genius and three of the children inherit her talent and her independent and inquiring mind. They are very poor indeed, and not so much proud as arrogant, with the arrogance of the artist. Their music, at which under their mother's tutelage, they all work extremely hard, is at least half the happiness of their lives. The other half is provided by their love for family and parents.

HEAVEN KNOWS WHERE (Secker and Warburg. 16s.) is a kind of intellectual frolic and, forbidding as that might sound, it really is funny. Mr. D. J. Enright has written about an island in the South China Sea, and about his character, Packet, who goes there in response to an advertisement in that unexceptionable organ, *The Times Educational Supplement*, to fill a post as a tutor in English literature. Neither the island nor its ruler, nor that ruler's staff, is fitted to a conventional pattern, and Mr. Enright's novel reflects a wonderfully zany quality.

Novels about saints have been in very short supply since one writer, if one may say so, scooped the pool, but now there is a long and impressive novel from Miss Henrietta Buckmaster on the life of St. Paul. In AND WALK IN LOVE (Gollancz. 16s.) Miss Buckmaster writes vigorously and unaffectedly, basing her thesis on a lifetime of reading and years of research.

There are three detective-stories to be considered this week and I will try to give an idea of them in this space. POISON IN THE PEN (Hodder and Stoughton. 12s. 6d.) is Miss Patricia Wentworth's newest book, which plain statement of fact should be enough for all fans of Miss Wentworth's or of her inimitable governess-turned-detective, Miss Silver. Country-village setting, which, as we all know, allows for all kinds of hatred, malice and lethal plots. DUST AND THE CURIOUS BOY (Michael Joseph. 12s. 6d.) is by Mr. Peter Graaf, a new writer whose work I hope to see again. The mystery in this story is not by any means impenetrable but the characterisation is very good indeed. THE TASTE OF BLOOD (Heinemann. 15s.) is Mr. Denzil Batchelor's story of a reluctant and ineffectual murderer. Although it is distinguished for its superbly-held tension alone, it is also frequently an exercise in wit.

SPAIN IN AMERICA

The Story of Santa Fé

It is easy enough on this side of the Atlantic to think of the United States as a single geographic entity, to dismiss from mind its strong sectional characteristics and to forget the long and remarkable recorded histories of many of the states-to-be before they became part of the Union. New Mexico provides a particularly fascinating example; for there it was that the Viceroys of New Spain set about the task of converting the Indian heathen to the Christian faith, and in so doing set their mark upon this part of America for ever. In THE CENTURIES OF SANTA FE (Macmillan. 21s.) Paul Horgan, the American novelist who has already written such a notable volume on the Rio Grande, tells in narrative form how the Spaniards came to colonise these fabled spaces of the north, and at the base of New Mexico's eastern foothills founded the Royal City of the Holy Faith, La Villa Real de Santa Fé. If the form is fictional everything that Mr. Horgan writes is closely based on the facts of history, and in this great, sweeping story he takes us from the days of the city's foundation up to 1848, when New Mexico was absorbed into the United States.

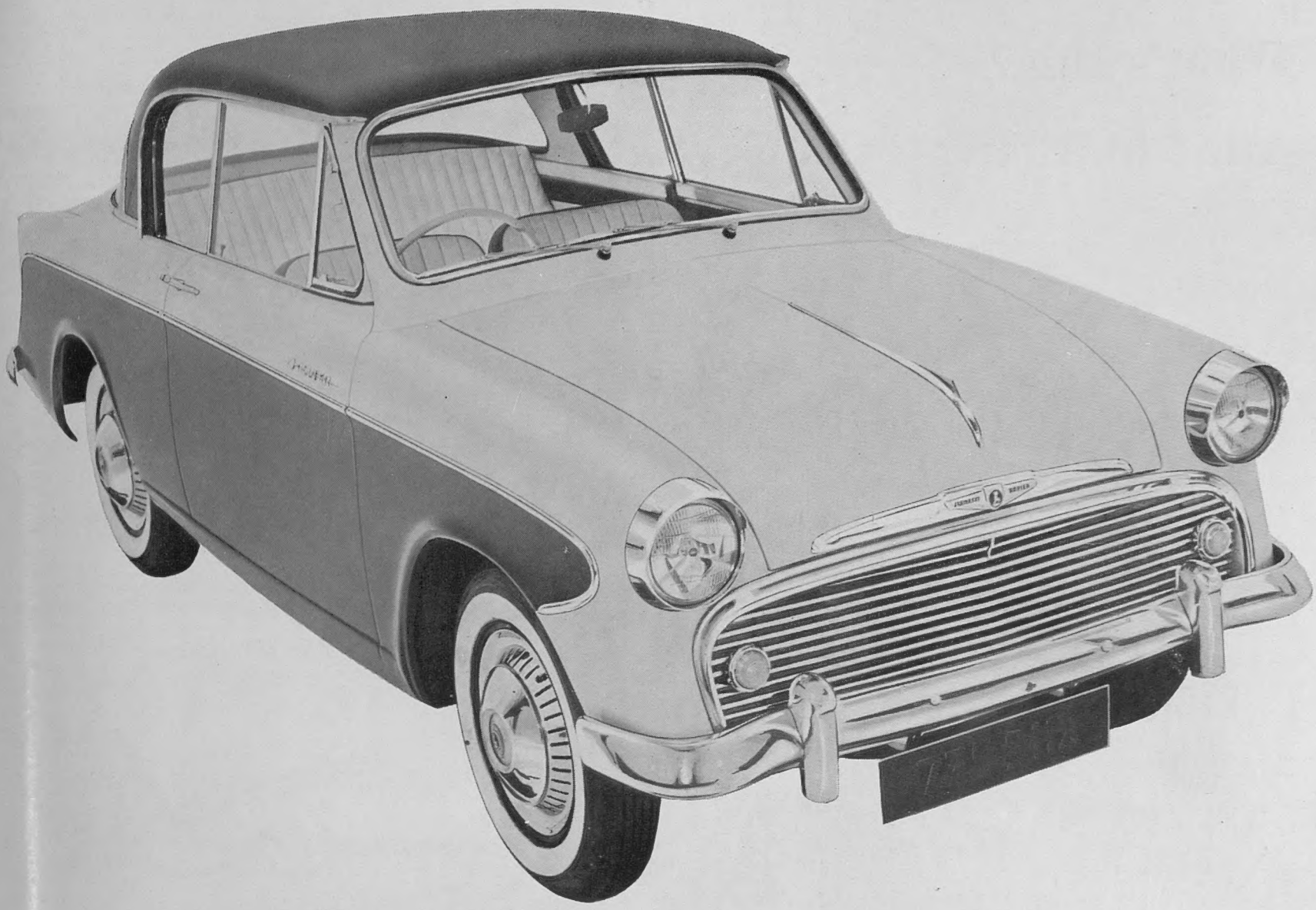
There were some folk in the United States in the long years of dissension that preceded the Civil War who held it to be a truth that slavery was a positive good. They based their view on the paternal and beneficent attitude of some of the great slave-holders. There were others, like Harriet Beecher Stowe, who were prepared to fight the evil of slavery to the last gasp. Men like Henry Clay, holding fast to their faith in compromise, were swept to the wall as the powder train was laid for the first of the great wars of modern times; the war in which civilians were to be major sufferers. Indeed, both in fact and in fiction the issue has seldom been seen straight. Now in GOODBYE TO UNCLE TOM (Secker and Warburg. 30s.) J. C. Furnas attempts to present the actual facts of slavery in nineteenth-century America the realities of plantation life and the slave trade. This is a long, lively and scholarly book, the product of much wide reading, concluding with a detailed study of the Negro problems in America to-day in the light of recent findings by scientists, psychologists, anthropologists and geneticists.

Since India achieved her independence books about that land have flowed as fast as they did in the days of the British Raj. Robert Trumbull's AS I SEE INDIA (Cassell. 18s.) is a particularly worth-while piece of contemporary reporting. Mr. Trumbull went to India in 1947 in time to witness the birth of the two new nations, and there he remained for seven and a half years, an observant witness of national progress. This alert journalist has taken full advantage of his great opportunity, and his sketches of India's new way of life and of her leaders in action help to build up a very real impression of the great contrasts and vast perplexities of this teeming land.

Eartha Kitt surveys her audiences "with the expectant look of a hungry vacuum-cleaner contemplating a handful of dust." That was one London dramatic critic's response to the dynamism of Eartha Kitt, the remarkable American Negro actress whom Orson Welles has called the most exciting woman in the world. An autobiography sooner or later was inevitable, and here it is. THURSDAY'S CHILD (Cassell. 16s.) is a racy and forthright book, and the greatest interest attaches to the chapters on the author's early days amid the cotton fields of America's deep south, where she lived in a world of hunger, misery and physical violence. This part of the book is of infinitely greater interest than the success story of the past few years in which Eartha Kitt has, so to speak, lived from one ovation to the next. Thursday's Child has certainly had far to go.

Clara Urquhart, close friend, lifelong admirer and sometime helper of Dr. Schweitzer and his family, has written a delightfully intimate account of the daily life of the great doctor and has enlivened it with some first-rate photographs of her own taking. WITH DOCTOR SCHWEITZER IN LAMBARENE (Harrap. 10s. 6d.) is written in unstinted admiration of a man who knows, as the author says, "where he is heading in a world that has lost its way."

THE GALATHEA DEEP SEA EXPEDITION (Allen and Unwin. 40s.) is described by members of the expedition in an admirable volume which contains some first-rate illustrations. The Danish *Galathea* carried out its marine biological studies in 1950-52, sailing right round the world and achieving most successful results.



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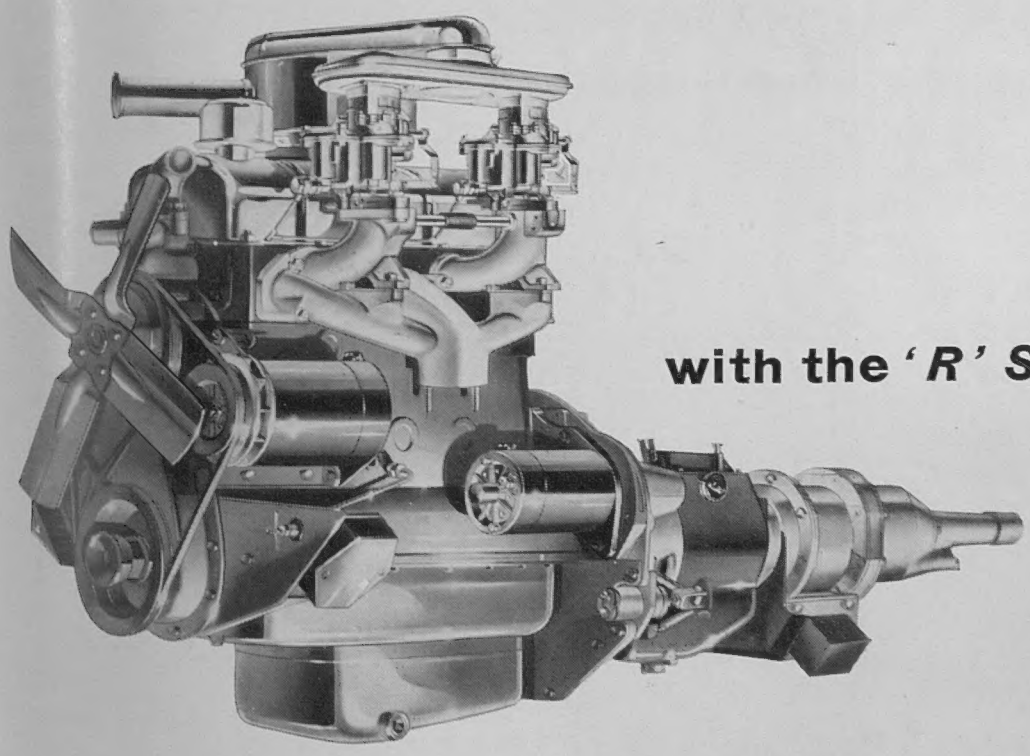

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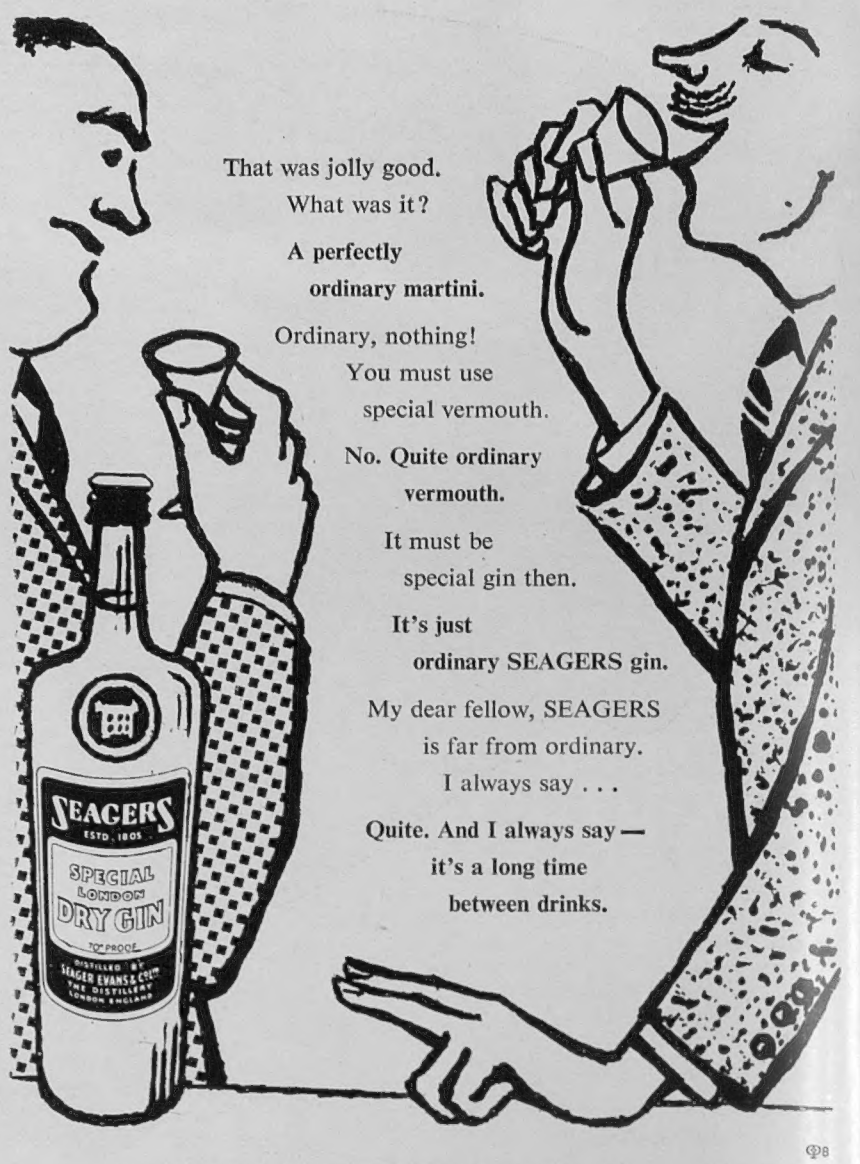

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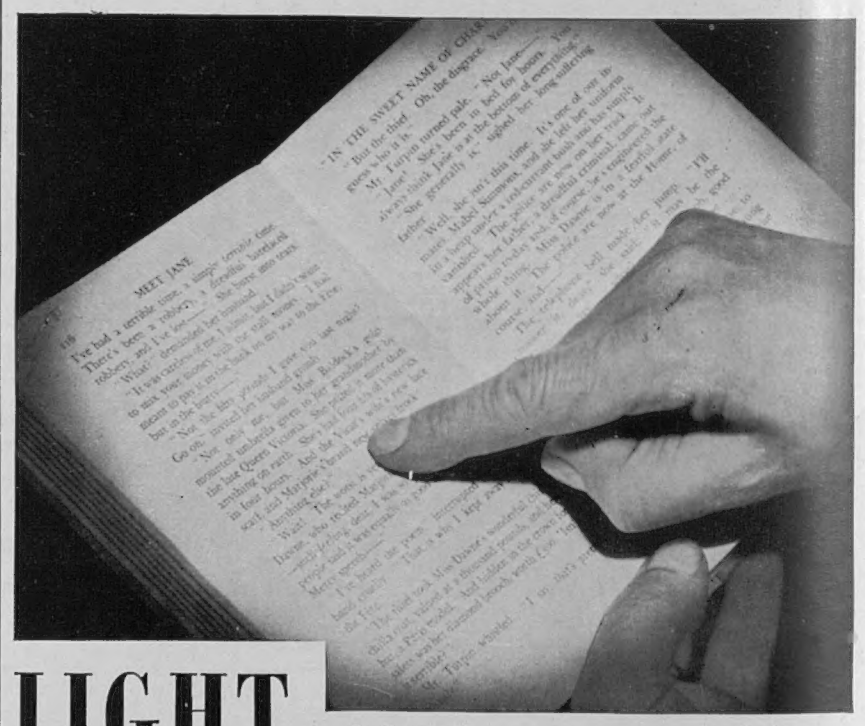

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